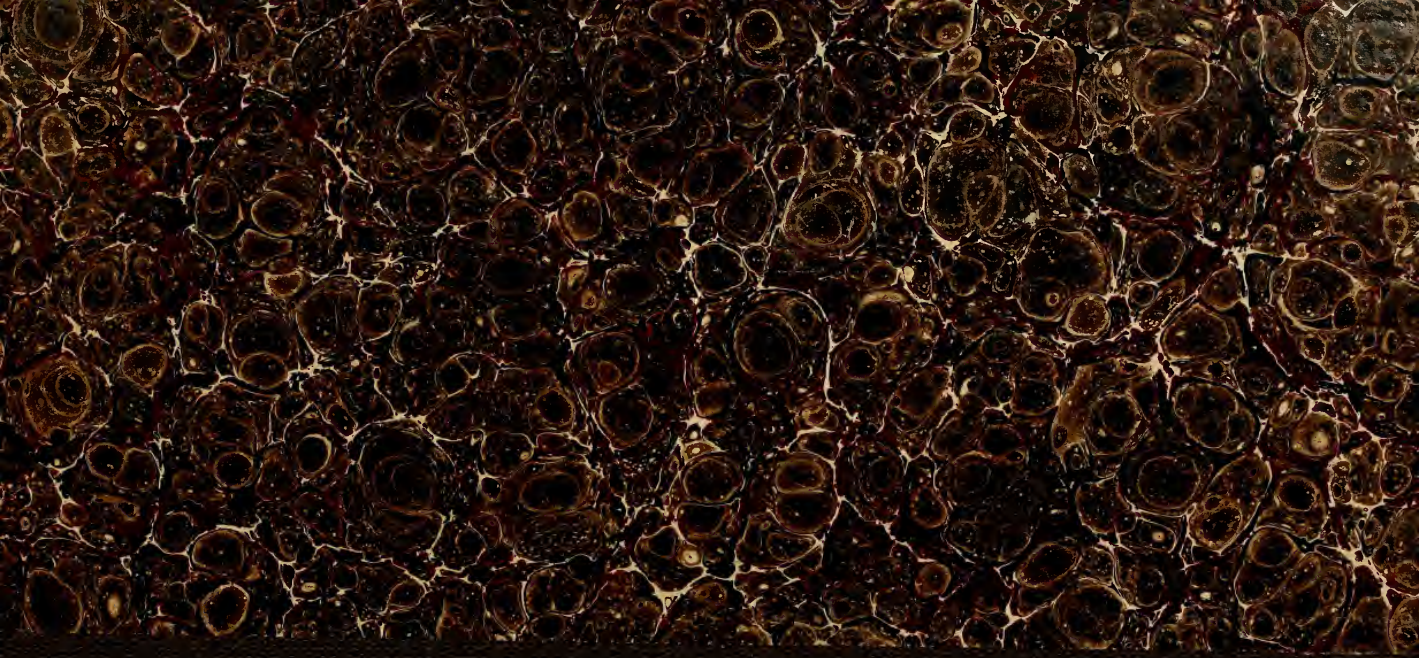

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The Charlotte Medical Journal.

VOL. XXVI. CHARLOTTE, N. C., JANUARY, 1905. No. 1

A Report of Fourteen Cases of Pulmonary Tuberculosis Four Years After Treatment by Culture Products.*

Louis F. High, M. D. Southern Pines, N. C., Medical Director of Pineshire Sanitarium for Tuberculosis.

The percentage of cures following the use of any remedy or plan of treatment is the exact measure of its worth, provided, the number of cases is large enough to eliminate possible errors, such as mistakes in diagnosis and the crediting to treatment favorable terminations that sometimes follow independently.

At the time of discharge the patients considered herein presented evidences of benefit no greater than that which might have been accounted for on grounds other than the use of culture products, save in a few instances and in an uncertain way.

When, after the lapse of more than four years, in four instances more than five years, so large a number of these persons are found to be alive and enjoying as fair degree of health as the rest of mankind, I was led to make the detailed inquiry and comparison embodied in this report.

Each patient received therapeutic doses of tuberculin or watery extract of tubercle bacilli (von Ruck) and in some cases both but not at the same time. On account of the difference in the price, in a few cases, the least expensive was used throughout, while in a very few others the treatment, begun with the one, was completed with the other.

In addition to the foregoing treatment each patient was the subject of individual inquiry and care. Every effort was made to promote the assimilation of a sufficient quantity of proper foods. To this end might be mentioned the routine procedures and many special methods that can be carried out only when the patient is under constant supervision.

At the same time an effort equally persistent was made to lessen disassimilation. Hyperoxidation was controlled by regulating rest and exercise. The waste products were washed out by large but not excessive quantities of liquids, usually milk. Hydrotherapy in some form was accepted by each. The time was spent almost wholly in the open air.

In a word, each patient was given the same care and treatment that he would have received had not the culture products been used.

*Read before the recent meeting of the North Carolina Medical Society at Raleigh.

TABLE I.
Condition at Time of Discharge.

Stage.	No. Cases Treated	Treated av. weeks	Apparently Cured	Per Cent	Greatly Improved	Per Cent	Unimproved.	Per Cent
1st.	7	13	5	71.4	2	28.6	0	0
2nd.	4	13	1	25	2	50	1	25
3rd.	3	11	0	0	0	0	3	100
Total Av.	14	12.6	6	54.5	4	28 6	4	28.6

TABLE II.
Condition Four Years After Treatment.

Stage	Number treated	Number still alive	No. free from evidences of former disease	No. who still have symptoms bar able to earn living	Number recovered since discharge	No. unimproved since discharge
1st	7	7	7	0	2	0
2nd	4	3	1	2	0	1
3rd	3	0	0	0	0	3

The chief interest in the foregoing report is found in the fact that none of the patients in the first stage of the disease have not only not relapsed in four years but that all those who were not well when discharged have since recovered, making a final recovery of 100 per cent.

Of those in the second stage 25 per cent. appeared cured at the end of their treatment, which cure has so far been enduring. With the exception of the patient who died, which was the one discharged as unimproved, our showing has not changed in these years, giving 75 per cent. to whom there is promise of longer days.

One of those discharged as greatly improved of the second stage group suffered a relapse two years later and again came under my care. Upon examination the tubercular process was found to have extended to a formerly healthy part of the same lung. In this case we have an instance where the natural resistance was greatly increased by the care and treatment she received but which lasted for awhile, when without apparent cause, it gave way and another crop of tubercles developed. The

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idea of immunity to tuberculosis is associated with a longer time than two years, still as the disease remained latent for that period and became active while the patient seemed in her usual health, it is not improbable that the immunity conferred by the use of tuberculin gave out at that time.

In her second treatment the same lines were followed as in the first instance. At the end of fourteen weeks the weight had been regained and all subjective symptoms had disappeared except a slight cough. She appeared to have lost nothing by the relapse except that upon discharge she had inactive tuberculosis where none had existed before, To this time there has been no change. The cough remains about the same and the mucus raised is free from bacilli. She attends her household duties without discomfort.

More extended observation has proven to me that whatever may be their influence in the earlier stages of tuberculosis culture products have no place in the treatment of the latter stage of the disease. Properly given they are without harm, but such persons are suffering the consequences of tuberculosis and not from any specific action of the baccilli. These remedies have no tendency to counteract the effect produced by the absorption of necrotic tissue products nor the toxines of saprophytic organisms both of which are present in large quantities.

Again, were it possible to produce immunity in persons in so odvanced a stage the area of healthy lung left would hardly be sufficient, in most cases, to comfortably maintain life for any considerble period.

Many observers have reported a larger per cent of apparent recoveries at the time of discharge with and without the use of culture products. What percent of these have remained cured after any considerable period is quite another matter in the way of the accurate determination of which there are many difficulties. I have not had the privilege of re-examining any of this group since their discharge. My statement is based on their own or that of their physician.

The Treatment of Chronic Ulcers of the Leg. *

By O. F. Blankingship, M. D., Richmond, Va., President of the Church Hill Medical Association; Second Vice-President of the Richmond Academy of Medicine and Surgery; Fellow of the Medical Society of Virginia; Formerly Demonstrator of Chemistry and Histology in the University College of Medicine.

In bringing this subject before this Society, in the beginning I would say, I have no novel or new plan of treatment to offer, but I merely wish to emphasize a plan which in my hands recently in several bad cases has given me very satisfactory results.

I feel that no apology is necessary in offering a paper on this subject, for if the experience of the members of this body has been as unsatisfactory as my former experience in treatment of this class of cases, the "Bete noir" of practitioners, you will welcome any suggestion, however simple, for their cure, for I think the majority of you will bear me out when I say that Mr. Jones or Mr. Smith or Aunt Maria with his or her chronic ulcer of the leg, often not very pleasant to the eye or nose, frequently of many years standing, and often like the woman mentioned in Scripture, "who has suffered many things of many physician and had spent all that she had, and was nothing bettered, but rather grew worse," having used all the remedies of which he or she could hear, read of, or which have been suggested by kind friends, is not a very desirable patient or one that we would choose of our volition.

Let us say a few words about ulcers in general:

Billworth defines an ulcer as a loss of substance with no tendency to heal, others as a molecular gangrene, or a suppuration of superficial parts with a tendency to spread into the surrounding tissues.

Petit says: "An ulcer is a loss of substance which has passed the time when it can heal by first intention."

Golding Bird defines it as "a limited area of granulation tissue upon a surface of the body." Perhaps the best definition is the following: "An ulcer is a superficial loss of substance or a solution of continuity upon any of the free surfaces of the body which will not admit of repair by primary union."

Ulcers may be classified in various ways: 1st. Granulating (a) healthy (b) exuberant (e) feeble. 2nd. Indolent (a) with small scanty granulations (b) covered with a substance resembling mucous membrane (c) raw. 3rd. Progressive (a) by molecular gangrene (true ulcers) (b) by sloughs of considerable extent (gangrenous or phagadenic).

As to their causes: 1st. Due to local causes. 1st, traumatic (2) infection (septic, primary lesion of syphilis, tuberculous, lupoid, dysenteric, etc). 3rd. Varicose (4) malignant (5) embolism, etc., and second, due to constitutional causes which it is not necessary to numerate.

Etiology.—Ulcers may be due to purely local causes either external (traumatism) or internal (infection) or they may be due to constitutional causes with local lesions (as secondary syphilis) or finally they may be

* Read at the meeting of the Medical Society of Virginia, October 20, 1904.

due to a combination of the two, the constitutional cause predisposing to ulceration, the local cause determining its occurrence and its situation, (as varicose veins. or traumatism in a feeble, gouty or tuberculous individual).

Age, Sex, Occupation, Etc.—Only slightly more frequent in old age. Three men have ulcers to one woman, due to greater exposure to traumatism, alcohol and syphilis. The greatest predisposing causes are neglect and filth, therefore more common in the laboring and lower classes.

The situation of the ulcer is most frequently on the leg, for the circulation is feebler and the exposure to traumatism is greater. Traumatism is one of the most frequent causes of ulcers.

Varicose Veins.—There is an undoubted relation of cause and effect between varicose veins and ulcers of the leg, though varicose veins may exist for a long time without ulcers occurring.

Many ulcers in case of varicose veins are due to small abscesses caused by phebitis.

Pathology, Formation.—When caused by constant irritation of some spot by mechanical or chemical means, congestion and oedema first take place with a thickening of the epithelial layer, accompanied by diminished hardening of the outer layer, so that it falls off more readily and thus the papillary layer is exposed. The latter already inflamed and full of leucocytes is attacked by suppuration and the defect spreads in depth and width; or a blister may be first formed when the covering of the latter is removed, a superficial loss of substance is left and an ulcer of the skin or mucous membrane results.

If a slough has formed in the skin or mucous membrane by any form of gangrene, embolism or traumatism, the slough is separated from the healthy tissues by an area of inflammation and suppuration, and when the slough falls out an ulcer of corresponding depth remains. A microscopic section through the edge of a simple ulcer of the skin in its stage of increase presents a thickening of the Malpighian layer as we approach the ulcer from the healthy skin, an increase in the size of the papillae, an enlargement of the blood vessel, some oedema of the connective tissue and an infiltration of the latter with small round cells, which grow more numerous until they fill the entire tissue, and pus cells are produced. The base of the ulcer presents various structures according to its depth, from the deep layer of the skin to the bone itself, but all attend by inflammatory changes.

In course of time when the ulcerative process has ceased to extend organization of the products of inflammation takes place and new connective tissue forms, especially around the blood vessels. This new tissue condenses and contracts as it grows older producing that dense fibrous layer, which surrounds and underlies the chronic ulcer.

Of the appearance of the chronic ulcer of the leg as it is when brought to the doctor, I shall say but little. The thickened raised border, sometimes with edges undermined, the dark lived color of the surrounding skin, the indolent or sloughing base is familiar to you all. The varicose ulcer is apt to be of a darker surrounding color of the skin and the edges are more apt to be undermined.

Many chronic ulcers are more or less painless, which perhaps accounts for their endurance by the patient for so long a time, but this is not always the case, as in two cases I shall mention, the pain was so great that it was almost unendurable and unfitted them for their duties.

Chronic ulcers are liable at any time from various causes to become inflamed and active. The prognosis under the usual plan of treatment by various ointments, lotions, etc., is not very favorable to a cure. These things often do good for a time, but do not often result in a cure.

Treatment.—I shall only touch on the various methods that have been used, hastening on to describe the plan which I have recently used. The treatment, of course, varies with the gravity of the case. In milder cases, rest, applications of various antiseptic and antiphlogistic remedies, accompanied by constitutional remedies and tonics may be all that is necessary. Strict cleanliness of the parts should always be carried out.

Of these milder remedies I believe one of the best is a weak solution of chloral hydrate (2 to 5 grs. to the oz. of water) applied on sterile lint. I have had very good results in some cases. The more severe cases require more heroic treatment. I shall mention a few of the more common ones

If inflammation is present, it should first be reduced by rest and appropriate means, Icthyol applications are good for this purpose. One of the most common and perhaps one of the best methods is the adhesive plaster strappings of Baynton. This acts by affording support and compression, two of the cardinal principles in treatment of these cases, but it seems to me that if there is much discharge the strips would have to be removed so often that it would not answer very well. I have not had much experience with this method. Similar in principle is the rubber bandage of Martin. This sometimes produces eczema.

Volkmans occlusive cotton dressing has

been used. Lister's modification of Volkman's consists in placing over the ulcer itself a piece of rubber tissue and then applying the cotton and the bandage.

These methods, as I have said before, in some cases may be all that is necessary, but my object in presenting this paper is to emphasize the fact that I believe in most cases that come to the doctor for treatment, (perhaps of several years duration), the best and most expeditious plan is to adopt a more heroic treatment, which while it may keep the patient confined to his bed or the house for five to six weeks, I believe in the long run is the shortest and best method.

In short, the method pursued is this. After a short preliminary treatment designed to disinfect the ulcer as much as possible and reduce inflammation, the patient is given a general anesthetic (for I believe in doing the work thoroughly and these ulcers are frequently exceedingly sensitive) the ulcer and surrounding parts are scrubbed, with a stiff nail brush, and soft soap or synol soap, then thoroughly curetted with a sharp curette, removing all the soft diseased tissue down to the hard dense cicatricral base, exploring any pockets and scraping them. Then with scalpel I make incisions through the base and edges of the hardened fibrous tissue cutting nearly or quite through the same. I cross these incisions; if there is hemorrhage, stop it by hot water and pressure. With a mop of absorbent cotton I lightly and quickly touch the entire surface with pure carbolic acid following it immediately by alcohol to limit its caustic action (I use this not merely for its antiseptic action, but also because of its deadening of pain. The patient does not suffer from pain after the operation. They generally express a great relief from pain). I then fill the wound with boric acid in powder or scales and apply a sterile gauze and cotton dressing held firmly in place with a gauze bandage. If there is not much oozing I allow this to remain on two days. The subsequent dressing consist of cleansing with carbolic lotion and hydrogen peroxide 50 per cent solution and a dry dressing of a powder composed of Dolomol with Icthyol (Icthyol seems to have a very stimulating effect on the granulations) sterile gauze and cotton, with bandage. If the granulations become too exuberant I cut them down with nitrate of silver. I prefer the Icthyol in a dry form, healing is more rapid than with ointments, Under this treatment there is usually a complete cure in from four to six weeks.

The patient can be allowed to walk around the house a little after three or four weeks. I will now report briefly two cases on which I have recently operated.

Mrs. B., age 40, strong robust person, quite a large family of children; no constitutional taint; two ulcers on right leg larger than a dollar piece; some varicose veins; think ulcers due to varicose veins. Very painful so she could not rest or follow her household duties. Operated on, no subsequent pain. Complete cure in six weeks.

Mr. M., age 30, says he had syphilis good many years ago. Probably true, as he had some hard tender nodueles in some of his muscles and a swelling above one knee, which resembled a gumma, but which disappeared. Two large ulcers, one on each leg, three inches in diameter a pocket of pus on side of one. Think they were probably due to breaking down of gumma. On one leg bone was denuded slightly in two places. Pain severe, not able to walk. Operated as above described. Gave five grains iodide potash "ter in die." Is now nearly well.

Practical Points in the Interpretation of Sanitary Water Analyses From the Physician's Standpoint. *

By Ernest C. Levy, M. D., Richmond, Va., Expert in Charge of Richmond Experiment Station.

It is a generally recognized fact that the chief advances in medical science during the past few decades have been along the line of preventive rather than curative medicine, and this seems likely to continue to be the case, in spite of all that has been accomplished or is likely to be accomplished by serum therapy, which, as has been so ably pointed out this morning, is itself the most promising line of advance in therapeutics.

No branch of hygeine, perhaps, has taken longer strides than that which relates to water sanitation. While this is undoubtedly true, at the same time it must be admitted that the medical profession deserves little credit for what has been accomplished in this direction. If we look over the list of eminent men to whom we owe the most significant advances in matters relating to water supply and water purification, we are forcibly impressed by this fact. Not only is this true, but the profession at large devotes little accurate study to the question. Only an exceedingly small percentage of medical men are capable of interpreting the results of a sanitary analysis of water.

Recognition of this fact is my motive in presenting this paper. It is scarcely necessary to call attention to the fact that, this

* Read before the Medical Society of Virginia at its 35th Annual Meeting, Richmond, October 18-21, 1904.

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subject being one to which some of the ablest scientific men in this country are devoting their entire time and study, only a few suggestions can be given in a paper of this length. I desire at least to point out the importance of the subject and to suggest that medical men should become familiar with it in somewhat the same way as they are required to be informed on strictly medical specialties, that is, to know what this specialty is capable of doing, to recognize the proper cases to be referred to the water specialist and, lastly, to possess at least sufficient knowledge of the subject to distinguish between the work of the real expert in this branch and that of the charlatan, who, I am happy to say, is in a most satisfactory minority in this line, though he is nevertheless to be found.

Sanitary analysis of water includes examination by four different methods. In addition to the laboratory tests, the necessity of having at hand all possible information as to local conditions cannot be too strongly insisted upon. The day is past when reputable chemists will undertake, except in unusual instances, to give an absolute verdict after analyzing a sample of the history of which they are in ignorance. The chemist may condemn a water in one instance and consider another water absolutely safe on account of a difference in source or local conditions, in spite of the findings being practically the same in the two cases.

It is always necessary, therefore, in sending a water for sanitary analysis to give as full data as possible as to its source and as to surrounding conditions. A better plan, where time will permit, is to send first for instructions as to the manner of collecting the sample and an outline of what information will be helpful to the analyst. At time, and always where the case is one of great importance, the expert should collect his own samples, and at the same time make a sanitary survey of the surroundings.

The four methods embraced in sanitary examination of water are, (1) the chemical, (2) the bacteriological, (3) the physical and (4) the direct microscopical. Each of these methods has its own peculiar value, and at times one, at times another, or, again, a combination of two or more is absolutely necessary in arriving at a final opinion as to the character of a given water.

Of the above mentioned methods, chemical analysis is the oldest, and very often it is still the most valuable. One of its strongest claims to confidence is that it is able to determine not only the present condition of the water but also to tell a good deal about its past history and furthermore, in certain instances, to predict the probability of future dangers. On the other hand, it is by no means as delicate a method of detecting pollution as is furnished by bacteriological examination where the latter is intelligently conducted.

Chemical analysis of water is divided into two classes—mineral analysis and sanitary analysis. The first has for its object the ascertaining of the kinds and amounts of inorganic constituents. This is frequently of real importance in connection with the use of waters for industrial purposes and with some medicinal waters, and of supposed importance in connection with the vast majority of "mineral waters," so-called.

Sanitary chemical analysis has for its object the ascertaining whether a given water is safe for drinking purposes, and this, in most cases, by determining whether or not there are evidences of pollution by sewage or other wastes of human life. Analyses of this character have to be undertaken with the utmost care, since the most minute amounts of certain substances have to be detected and measured. It is in this class of chemical analysis of water that the interpretation is all-important; for a sanitary analysis of water does not detect substances which are in themselves injurious, even when present in many times the quantity ever found in the worst water. Neither does it detect substances peculiar to polluted waters.

A sanitary analysis which would lead a chemist to condemn a given water unqualifiedly shows nothing but substances such as are found in another specimen which he reports as safe, only in the former instance these are present in larger amounts, though even this is not always the case. With these facts as they are, it would still be comparatively an easy matter to interpret a sanitary analysis of a water if any limits could be positively laid down, below which a water could be regarded as safe and above which it could be condemned. But even this is not possible. The findings of the analysis are to the chemist what symptoms of disease are to the physician, and the diagnosis is made in each instance by a careful weighing of all the evidence at hand, hence skill in the interpretation of a sanitary water analysis comes only with experience. Furthermore, as mentioned above, local conditions must always be taken into account. An amount of chlorin, for instance, which would lead one positively to condemn as unsafe a water coming from the western part of this State might be entirely normal in water from the Eastern Shore.

The chief points in connection with sanitary analysis of water are the quantitative determination of chlorin, the various forms

of nitrogen, and, less important, the organic carbon, though other tests are commonly included.

Chlorin, in the form of chlorids, is found normally in almost all waters, so the entire value of the test is a quantitative one. There are three sources of the chlorin which may be found in water. First, there is the "normal chlorin," derived from the salt which has been taken up in the vapor arising from the ocean and precipitated as rain or snow. The amount of normal chlorin is dependent upon several factors, the most important of which is the distance from the sea, though temperature and the direction of prevailing winds are also to be considered. The second source, which has only occasionally to be taken into account, is the soil. In some sections, ground water contains large amounts of chlorin derived from this source.

The third source of chlorin is the one which is of interest to sanitarians. If we can be sure that the soil of a given region does not contain chlorids and if we know the "normal chlorin" of the section (both of which facts can be ascertained by analyses of waters from the same region which are known to be unpolluted), we are usually safe in attributing any excess over and above the normal chlorin to contamination by the wastes of human life, chlorid of sodium (common salt) being intimately associated with human beings. In certain States, normal chlorin maps have been constructed, and by inspection of these the analyst is at once able to state whether a given sample of water contains an excess of that element.

Once having gained access to a water, chlorin remains there in spite of any process of purification, natural or artificial, to which the water may later be subjected. It is an indelible sign of pollution, but it does not give any information as to the time at which the pollution occurred—whether recent or so far in the past that the water is no longer dangerous. This latter point is well indicated by the tests for nitrogen in its various forms.

Aside from small amounts of ammonia and, at times, nitric acid, the nitrogen found in waters has been derived from organic matter. The form in which the nitrogen of organic matter itself shows up in analysis is as "albuminoid ammonia," so that a large amount of this constituent shows, in general, recent entrance of organic material, but mere chemical analysis is often unable to determine whether this material is harmless vegetable matter or dangerous animal pollution.

The natural decomposition of albuminoid ammonia gives rise to "free ammonia," which is thus taken to indicate a somewhat more remote entrance of organic material into the water. The next stage of oxidation gives rise to nitrites, and finally nitrates. When the nitrogen reaches the latter stage, mineralization of the organic matter whence it was derived is complete, and the water no longer contains food material for bacteria, though it has then become excellent ground for the growth of algae, blue-greens, etc., which are sometimes responsible for disagreeable tastes and odors in water, although never responsible for disease.

By the actual amounts and relative proportions of nitrogen in the forms of albuminoid and free ammonias, nitrites and nitrates, the sanitarian is thus enabled not only to form a pretty accurate idea of the degree of pollution but he is also able to tell a good deal about the time at which such pollution occurred and hence whether or not the water is safe.

One of the greatest weaknesses is what has been referred to above, namely, the inability of chemical methods to determine whether the nitrogen is from vegetable or animal source. Considerable aid is given in this direction by the amount of chlorin, or, at times, of the "oxygen consumed," which latter is a measure of the organic carbon. Thus, high albuminoid ammonia is probably of vegetable origin if the chlorin is low and the oxygen consumed high; while high chlorin and low oxygen consumed usually indicate animal origin.

The second method of examination of water for sanitary purposes is the bacteriological. This is divided into two branches, the quantitative and the qualitative. The first consists in merely ascertaining the number of bacteria found per cubic centimeter; the second, in a general way, whether the bacteria present are of such kinds as to indicate that the water is dangerous for drinking purposes.

The mere enumeration of the bacteria present is at times of great value, especially where this has been ascertained by daily observations over an extended period, but there is not, and never can be, any arbitrary standard in this respect. Here, again, judgment is all-important, since a number of bacteria sufficient to condemn a certain water may be entirely permissible in water from another source or in the same water under different conditions. The bacterial count has its greatest use in connection with tests of purification methods. Here it is invaluable, and is, indeed, all that could well be desired, since it is entirely fair to assume that any method which will remove a large proportion of bacteria, regardless of

their kind, will equally well remove pathogenic bacteria should such be present.

As to the qualitative methods of bacteriological examination, the one of greatest importance is the determination of the presence of Bacillus coli. While this organism is not itself capable of producing disease when taken into the human intestinal canal, of which it is a normal inhabitant, still its presence in water is taken to indicate, under most conditions, the pollution of that water by human excreta. This is by no means universally true, since this bacillus is also found in the intestinal tract of other animals, besides which we now know that bacteria which it is impossible to differentiate from the colon bacillus occur more or less widely distributed in nature. In spite of these drawbacks, the test for bacillus coli, properly conducted, is the most valuable single test for fecal pollution. The test must, however, take into consideration the number of these organisms present, since any surface water, no matter how pure, will occasionally give a positive test for Bacillus coli if sufficiently large samples are examined.

There are a number of refinements in the work of detecting and correctly interpreting the presence of Bacillus coli in water. If these are properly observed, this test is capable of showing the presence of one part of sewage in from 10,000 to 100,000 parts of water, while the most delicate chemical tests fail if the dilution is greater than 1-1,000.

When bacteriological methods were first applied to the examination of water, it was rather confidently expected that by this means we would be able accurately to determine whether actual disease germs were present. This expectation has not been substantiated by facts, and now no competent bacteriologist expects to find, for instance, the typhoid bacillus, even though there is every reason to believe that the water in question is responsible for an outbreak of typhoid fever. It is beyond the scope of this paper to enter into the explanation of this fact. What the bacteriologist does rely upon in such cases is the detection of the colon bacillus. If this is found, and especially if it is found repeatedly, it indicates fecal contamination and, hence, if there has been a case of typhoid fever among the individuals from whom this fecal contamination is regularly derived, it may be pretty safely stated that typhoid bacilli have also entered the water, The test for the germ of Asiatic cholera is far more satisfactory, but at this time, and in this country, fortunately, we are never called on to examine water for this purpose.

Besides the chemical and bacteriological methods, we have also the physical and the direct microscopical. The former gives us exact information as to the amount of turbidity and color present. It is, therefore, valuable chiefly from an esthetic, rather than from a sanitary standpoint. The odor of water, both cold and hot, also belongs to the physical methods. At times this is of decided value, but the question cannot be discussed here.

The direct microscopical method is for the purpose of ascertaining the kind and amount of matters in suspension. This is often of great service taken in connection with the chemical analysis. For example, a water which has been found to contain an undue amount of albuminoid ammonia may thus turn out to be entirely safe (though undesirable for other reasons) if the microscopical examination shows a large number of algae, and especially blue greens, present. Again, the finding of other objects in suspension may be of great value. In a water which I examined at Waterville, Maine, additional evidence of pollution, besides that brought out bacteriologically, was furnished by the finding of epithelial cells, although, in this instance, chemical analysis alone would have pronounced the water safe.

In the foregoing paper many matters of importance have been altogether neglected and others but lightly touched upon. My object in presenting these remarks before the Society was, to repeat, simply to endeavor to show the importance of the work which is now being done in the line of sanitary examination of water and to urge the members to become acquainted, at least, with the elementary principles upon which this work is founded. This specialty, as others, must remain in the hands of those who devote themselves strictly to its study and who have at their command the necessary experience and familiarity with all the methods above mentioned, as well as the rather costly laboratory equipment, but there is every reason why physicians should themselves be acquainted with this work in a general way. The time so spent will not be wasted. Those who are willing to take the trouble to acquire this knowledge will have the satisfaction of being able to throw light upon many problems which would otherwise remain unsolved, doing this often by their own efforts and at other times by recognizing the possibilities of this science and calling in the water expert as they do the medical and surgical specialist.

Phosphates of Iron, Soda, Lime and Potash, dissolved in an excess of Phosphoric Acid, is a valuable combination to prescribe in Nervous Exhaustion, General Debility, etc. Robinson's Phosphoric Elixir is an elegant solution of these chemicals. (See page xii.)

The Virginia Laws Regulating the Sale of Poisons. *

By Geo E. Barksdale, M. D., Richmond, Va.

The subject that I present for your consideration is fully worthy of far more time and deliberative thought than it has received during the past; for, until we are brought to a consciousness of what harm the careless sale and handling of potent substances can do, it is hardly likely that we will give the matter great thought.

For two or three years, I have been at great pains to elaborate a bill that would be sufficiently stringent in its provisions to protect the public, yet permitting with the least degree of inconvenience the dispensing of poisonous drugs without unduly making the provisions irksome. I have read the draft of this proposed bill before the Virginia Pharmaceutical Association, where it caused a great stir and precipitated a heated discussion; but no action was taken other than referring the paper to a committee, and my effort, as well as that of others, fell flat, nothing was done.

I did likewise before the Richmond Academy of Medicine and Surgery and had the good fortune to secure that Society's approval and endorsement of my bill.

Now I have come to the chiefest of all associations medical in Virginia to secure its endorsement likewise. When I have fully given my reasons for your support and approval to have my bill become a law, I do not think you will deny it.

The United States Vital Statistics for 1900, gives the total number of deaths in Virginia for that year to have been 25,252. Of this number 110 lost their lives by drowning, 57 by murder, 18 by injuries due to machinery, 14 to lightning, 37 to burns and scalds, 132 to railway accidents and 59 were killed by poison alone, more than one-half as many as were drowned, more than were murdered, more than three times the number that were killed by machinery, and about half the number killed by railway accidents. Of the suicides occuring within the State which numbered a total of 27, 2 were from throat-cutting, 2 from drowning, 3 from hanging, 4 from poisons and 16 from shooting. Thus we see that 55 persons lost their lives from accidental poisoning within a single year within the State.

When we consider that almost as many persons lose their lives owing to poisons as die from accidents of pregnancy including sepsis and eclampsia upon the latter of which we have a surfeit of papers and discussions annually. It is assuredly time for the law to adopt some means to withhold from a public that is ignorant these dangerous drugs.

Of course, it is not meant to prohibit the sale of poison, that would be well-nigh impossible, but rather to limit the sale and hedge about the innocent user with proper safeguards that will, I ardently hope, lessen this flagrant waste of life. At present there is virtually no poison law upon the statute books. We read of such nonsense as this. I quote from Section 1763 of the Code:

"It shall not be lawful for any person, having authority to sell or dispense medicine or poisons, to retail, except upon prescription of a registered licensed physician, dentist or veterinary surgeon, morphine and its preparations, opium and its preparations, containing a higher percentum of opium than laudanum, prepared in accordance with the formula of the pharmacopœia of the United States of America and the druggist shall take and file and not refill the same; nor such person or persons retail any poison enumerated in the following schedules "A" and "B" without distinctly labeling the bottle, box, or vessel, or paper in which said poison is contained with the name of the article, the word "poison" and the name and place of business of the seller; and in addition thereto at least two of the most readily obtainable effective antidotes to such poisonous article."

This could be construed to mean almost anything. It prohibits the selling of ten grains of morphine except upon a physician's prescription but allows the wholesaling of a vial containing a dram. It allows the sale of laudanum and prohibits the apothecary to sell opium and extracts of opium. Yet gallons of laudanum are sold to a pound of crude opium. The accomplished pharmacist who can discriminate is forbidden to sell a prescription which contains extract of opium or morphine, yet the country merchant who is ignorant of medicine can sell as much morphine as he pleases.

For reasons best known to the original author of the poison law, which, by the way, is virtually a copy of the poison law of some other States, it has been thought necessary to divide poisons into two schedules. namely, "A" and "B." The reason for this has never made itself apparent to me and is as senseless as it is useless.

"Schedule A" embraces the following: Arsenic and its preparations, corrosive sublimate, biniodide of mercury, cyanide of potassium, hydrocyanic acid, strychnine and its salts, and essential oil of bitter almonds."

The above poisons must be registered, but aconite may be sold without registration. Will any body be so bold as to say that an ounce of tincture of aconite will not produce death as well as one of Fowler's

solution? Or is not red precipitate (which it is not necessary to register) quite as potent as biniodide of mercury? Does any body seek to murder or commit suicide with strychnine, when carbolic acid or opium is obtainable? Assuredly *no*. Yet strychnine must be registered and opium not.

This law further prescribes thas no cocaine shall be sold other than by a regularly licensed pharmacist and his sales are restricted to physicians, surgeons, dentists, or pharmacists. Is cocaine worse than opium? In this brief summary of the poison law of the State, we have reason to see that we have grown negligent in the matter and it badly needs attention. Powerful agents that are liable to produce permanent injury or loss of life are easily obtained and with the inevitable result. Ignorant persons deeming themselves immune to large doses take them and death results. Children secure bottles of poisonous tablets and eat them—the same results. Poison bottles being like other kinds, mistakes are made in the dark and the wrong substance taken causing lasting regret—but again a like result. Then the hapless suicide, perhaps a drunkard after a night of wassail, tottering upon the verge of madness, takes poison and leaves a family dependent upon the State. This may seem funny to some and I have heard many jeer that it is well to let a suicide die. But, while possessing a supreme sense of the ridiculous, the point of the joke is lost upon me.

Now, since there is no poison law that we can depend upon with confidence, I shall go into a discussion of the one I propose. First, let us suppose that there is not a single regulation governing the sale of poison in the State, or in the Union; it would be necessary to define the term poison or to name the lists of substances so considered. Now, since some poisons are more potent and rarer than others, these have been placed in a separate paragraph, and are positively forbidden to be sold except upon the order of a physician.

The less poisonous substances are placed in another paragraph and are forbidden to be sold in quantities of over a dram of the drug, or a fluid dram of the liquid or solid preparation therefore, or that more than a quarter of an ounce of croton oil, chloroform, chloral, sulphate of zinc, or carbolic acid should be sold except upon the written order of an officer of the law, a physician, veterinary, dentist or analytical chemist.

Why this restriction? This is why. Persons suffering from acute pain can find relief probably by using a dram of laudanum but it is hardly likely to produce death, at least there is not the likelihood of its doing so that there would have been had an unlimited amount of poison been obtainable.

The quantity of chloroform, croton oil, etc., is limited for the very same reason. Should the person desire more, it would be necessary to make the facts known to a third person and to secure his consent in writing.

All of us know how frequently murderers have been trapped by means of the records of poisons kept in stores; and we also know that even the lax surveillance that has been hitherto observed in the sale of poisons has had the tendency to materially lessen the number of murders that have been committed by means of them.

The writer considers it nothing less than criminal to dispense a poison in any thing that does not convey at a glance that the contents thereof are poisonous, for several reasons, viz: the label may become stained or blurred or, perchance, come off, or a poison be placed in a beer or soda bottle, or the bottle may be mistaken in a hurry, or during the night, and the poison taken or administered for some innocent remedy, which we are well aware has been done some thousands of times. For this reason, I have suggested the use of triangular vials because they are uncommon, and the green color will in, say, twenty-five years become the color associated with poison. "Poison" is to be blown in the bottles because labels come off. A penalty is attached to using the bottle for any other purpose, because it is my intention that the public be taught that these bottles are for poisons and for nothing else, and whenever one of the bottles is found it is supposed to contain poison. As to the labels, this is, of course, in accordance with the present law.

To neglect so easy and so economical a means of security against the possibility of an accident and the protection of a public that is ignorant of the potency of poison, is criminal. It is as obligatory upon us to provide this precaution as it is for a city government to force sellers of gunpowder to keep their stores beyond the city limits and for the national government to maintain lights along the coast for the guidance of mariners.

As for poisons dispensed on physicians' prescriptions, it would, of course, be detrimental to the physician to label the bottle "poison" without his consent, but as a public safeguard none but he who had no regard for other than his own interests would be likely to object to the bottle, box or package bearing the words: "To be used with caution and kept out of the reach of children."

A BILL TO AMEND THE LAW REGULATING THE PRACTICE OF PHARMACY.

Be it enacted by the General Assembly of

Virginia that it shall be unlawful to retail the following:

Arsenic and its preparations, phosphorus and its preparations, bichloride of mercury, white precipitate, biniodide of mercury, cyanide of potash, hydrocyanic acid, essential oil of bitter almonds. Also the alkaloids of aconite, belladonna, opium, colchicum, conium, nux vomica, coca, digitalis, henbane, (or their salts) and such other alkaloids and principles of a poisonous nature as may be discovered from time to time, or any compound, mass, pill, solid or liquid, containing any of them in sufficient quantity to produce death, except upon the written order of a physician.

It shall be deemed unlawful to retail aconite, belladonna, colchicum, conium, nux vomica, hysocyamus, savin, ergot, cotton-root bark, cantharides, opium or their preparations (unless they contain less than two grains of drug to the fluid ounce) in quantity of more than a dram or a fluid dram, if a preparation, either solid or liquid, or more than a quarter-ounce of croton oil, chloroform, chloral hydrate, sulphate of zinc, carbolic acid, or any other poison that may be discovered from time to time, except upon the written order of an officer of the law, a physician, veterinary, dentist, or analytical chemist.

It shall be unlawful to retail any of the foregoing poisons, without first recording in a book, kept for the purpose, the name and address of the purchaser, name and quantity of poison sold, date of sale, the purpose for which it is to be used, and the name of the dispenser. The record thus kept is to be always open for inspection by the proper authorities.

It shall further be unlawful to retail or dispense any of the foregoing poisons in any other than a triangular green vial or bottle, with the word "poison" blown in the glass (whether it be a solid, liquid, pills, tablets, or parvules) and the same to be plainly labelled with the name of the seller, his place of business, and the word poison printed in red letters on a white label, or to use these bottles for any other purpose excepting poisons dispensed upon a physician's prescription, in which the vial or bottle shall bear a label printed in red letters upon a white ground as follows: "To be used with caution and kept out of the reach of children," and, if a box, envelope or package, it shall be sealed with a slip bearing the above words.

Any violation of the above statutes shall be punishable by a fine of $25.00 for each separate offense from and after the passage of this Act.

Errors in Diet as a Cause of Infantile Diarrhea.*

By St. G. Grinnan, M. D., Richmond, Va.

While the English and American laws regard anyone under twenty-one years of age as an infant, in common parlance we receive the word infant in its etymological sense (in and fari—not speaking). I will, however, for convenience, regard an infant as being under five years of age.

The theories in regard to the causes of diarrhea in infants have included everything that the lively imagination could suggest, from the changes of the moon to the shape of the nursing bottle.

The number of deaths during the first year of life is far in excess of any other period of life, and the number of deaths during the first five years of life is four times as great as any other period of five years duration. In the United States (census 1900) 30.5 per cent. of all deaths occurred under five years of age. In New York City, 30.2 per cent., in Louisiana 31.1 per cent., in England and Wales 36 per cent., in Virginia 30.2 per cent. of all the deaths respectively occurred under five years of age. Only 5 per cent. die of old age from 70 to 74. The death rate for all ages is 17.5 per thousand annually in the United States. Considering the population under one year of age, the death rate under one year in Bradford England (census 1900) was 171 per thousand, in New York City 189, in New Orleons 229, in Richmond, Va., 300 and in Charleston, S C., 419 per thousand. Considering the population under five years of age, the death rate under five years in New York City is 66, in New Orleans 71, in Richmond, Va., 94, in Charleston, S.C., 132 per thousand. In 1890, the death rate under five years of age in New York City was 96 per thousand. Rabagliati says that one-fourth of the children in England and Wales die during the first five years of life. The death rate in New York City for all ages has decreased from 25 per thousand in 1890 to 20 per thousand in 1900. The death rate in Newark, N. J. for all ages has decreased from 27.4 per thousand in 1890 to 19.8 per thousand in 1900. In Richmond, Va., the death rate for all ages has increased from 26.7 per thousand in 1890 to 29.7 per thousand in 1900.

Out of 39,381 deaths under five years of age in New York (census 1900), diarrheal diseases claimed 8,278; diphtheria came next with 1,762 deaths. Of all ages, typhoid caused 1,776 deaths, and smallpox only 16 for the same period. The greatest mortality from consumption in New York

*Read before the Richmond Academy of Medicine and Surgery, May 24, 1904.

is from 25 to 30 years of age, claiming 2,133 deaths against 8,278 from diarrheal diseases under five years of age for the same period (census 1900). In Virginia, out of 7.748 deaths under five years of age, the diarrheal diseases claim 1,115, whooping cough comes next with 260. The greatest mortality from consumption was from 20 to 25 years of age, claiming 561 deaths during the same period (census 1900). In the United States, during 1900, 10.7 per cent. of all deaths were caused by consumption; 10.2 per cent. by pneumonia, while 6.6 per cent. were caused by diarrheal diseases in infants under five years of age.

The following taken from the census of 1900 (Vital Statistics, Vol. III, Part I, p. CXI) gives the number of deaths from the diseases considered, and proportion per 100,000 of population:

	Number	Proportion
(1) Consumption	111.059	10,688
(2) Diarrheal Diseases	46,907	4,514
(3) Cholera Infantum	25,576	2,461
(4) Diseases of Stomach, including Gastritis	13,484	1,298
Total of (2), (3) and (4)	85,957	

Of the 85,967 dying of diarrheal diseases, cholera infantum, diseases of the stomach including gastritis, 80 per cent., as given in the census, were under five years of age. Thus we have an annual mortality of 68,773 from infants under five years of age caused by diarrheal diseases and gastritis. Consider the ratio of diarrheal diseases to consumption during the summer (Vital Statistics, Vol. III, Part I, p. XCXIII). For every 100,000 of population the following death rate by months.

	June	July	August	September	February
Total	123.2	110.8	145.	131.9	
Diarrheal Diseases	11.1	36.5	32.7	21.2	2.8
Consumption	12.9	14.1	13.4	12.9	14.4

In view of these facts we are forced to conclude that the mortality of young infants has not improved as compared with the mortality at other ages in recent years.

Koplik says that in large cities more than one-half of the deaths among infants under the age of twelve months is caused by summer diarrhea. In Paris, Chaterinkoff found that of 20,000 children dying of intestinal disorders fully four-fifths were bottle fed. Of 1,943 fatal cases collected by Hope, Meinert and Ballard only 61 cases, or 3 per cent. had been breast fed exclusively. Fatal cases among nursing infants are rare.

It is not easy to classify the causes of diarrhea. Vaughn says it would be unscientific to attempt a classification of the iarrheas of infancy founded upon pathologic anatomy. I will consider especially such causes as indigestion and infection. It would be impossible to consider the causes of diarrhea without bearing in mind the digestion of the infant. Traube and Escherich have shown that in the young child stomach digestion is of less importance than intestinal digestion. The younger the infant the less active the digestion of the stomach. Hall in his physiology says: "The investigations of recent years tend to minimize the importance of the stomach not only in digestion, but also in absorption." One percent of water is absorbed from the stomach; it is principally absorbed from the small and large intestines. McFaydn demonstrated that the stomach of a dog, with hydrochloric acid sufficient to dissolve bones. did not destroy bacteria that passed through the stomach into the intestine. Miller has shown that an acidity of .16 per cent. was required to prevent bacterial growth, and Van Puteren, that the acidity of an infant's stomach is really .08 percent.

It is well to bear in mind that milk is a fluid outside of the body only. We have solid matter in the stomach, solid matter in the colon and 90 percent liquid in the small intestine. We may consider the alimentary canal of an infant one year old as a tube fifteen feet long, practically closed at both ends. The fact that milk is digested nearly if not altogether, by the small intestine, explains why indigestion in infants induces diarrhea.

Occasionally diarrhea is caused in a nursing infant owing to excess of fats or proteids in the mother's milk. In such cases the error is more probably caused by too frequent nursing. Asparagus eaten by nursing mothers will cause diarrhea in their infants. The mother's milk may be affected by iodine, arsenic, antimony, zinc, lead, mercury, iron, aloes and belladonna. These, however, are not frequent causes of derangement of the intestine of an infant.

Holt says that acute gastric indigestion, acute gastritis and chronic gastric indigestion are caused by excess of proteids and other errors of milk. The synonyms of acute intestinal indigestion are simple diarrhea, irritative diarrhea and mechanical diarrhea. The synonyms of chronic intestinal indigestion are chronic diarrhea and chronic irritative diarrhea. The causes of indigestion and diarrhea are the same. We live, not upon what we eat, but upon what we digest.

In a large majority of cases the cause of the indigestion is an excess of proteids in cow's milk, or an excess or diminution of some other constituent. The rate of growth of an animal is an index of the percentage of proteids and mineral in the milk. The following table is interesting, (Heuber,

Zeit. f. Diat und Physik Ther. Bd. 3, p 1, 1899):

	Time by which weight is doubled in days.	Proteids.	Ash.	Lime.	Pho phoric Acid.
Human	180	1.0	0.2	0.032	0.047
Horse	60	2.0	0.4	0.124	0.131
Calf	47	3.5	0.7	0.160	0.197
Goat	19	4.3	0.8	0.210	0.322
Pig	18	5.0	.....	.....	.....
Sheep	10	6.5	.9	0.272	0.412
Cat	9.5	7.0	1.0	.....	.....
Dog	8	7.3	1.3	0.453	0.493
Rabbit	7	10.4	2.4	0.891	0.996

Here we find that a calf doubles its weight in 47 days, and the cow's milk contains 3.5 per cent. proteids. In building up the body cells proteids are first in importance, the carbohydrates second, fats third. We see, therefore, that in cow's milk the most important constituent, proteids, is three times as abundant, and as we will see later, very much more indigestible than the proteids in woman's milk.

When we consider the growth of a calf and a baby, when we consider the enormous energy that a calf possesses as compared with a baby and when we consider that a calf will digest grass and various buds, we need not wonder that the food intended for a calf will cause derangement of the digestive tract of an infant. We must remember that a calf is a ruminating animal, a calf will "chew the cud" when a few hours old. It, therefore, gets a chance to chew the leathery mass that has been coagulated in the stomach. The infant is not so fortunate in this respect.

We must further consider that an animal, in order to double its weight in a short time, must have a powerful stomach and be provided with rich milk. Such is the case, as shown in the foregoing table. The stomach of a dog is associated with bones, that of a pig will digest almost all raw material, that of a goat is associated with cans and paper. The stomach of a horse is more delicate than that of a cow, and that of man yet is far more delicate. The stomach of a cow digests shrubs, rough weeds and grass. We will now understand the importance of considering the difference between human and cow's milk. Both contain proteids, carbohydrates, fats, salts and water. Cow's milk is acid, woman's alkaline. The specific gravity is the same. While cow's milk contains 3.5 percent proteids, the casein forms five-sixths of the total proteids or 2.9 percent. In woman's milk, casein forms two-sixths of the 1% proteids or .3 percent of the proteids, that of the cow, therefore, being nine times as abundant as that of the woman. The casein of cow's milk belongs to the nucleo-albumins. In the manufacture of cheese casein is separated by rennet. Aristotle refers to the rennetting of milk with the sap of the fig. It (casein) contains phosphorus, is acted on by acids, and heat as well as the rennet of the child's stomach will coagulate it. As soon as cow's milk is taken into the infant's stomach, being acted on by rennet, it becomes a solid. The clot of casein shrinks into a tough, leathery mass and offers considerable resistance to the digestive organs. The curd is denser the greater the proportion of casein and lime salts and the higher the acidity. Cow's milk contains nine times as much casein and six times as much lime salts as woman's milk, and is acid (Koplik). The curd formed from it is more bulky, less flocculent and more disposed to form large clots than that formed from human milk. Para-casein and pseudonuclein of cow's milk pass through the gut of the infant unabsorbed The loss in phosphorus is 16 times as great with cow's as with woman's milk (rachitis). Human milk contains in addition to lecithin and nuclein more combined phosphorus than cow's milk.

"Of the total phosphoric acid in human milk 35 per cent. is in the form of lecithin. Of the total phosphoric acid in cow's milk five percent is in the form of lecithian. Of the total phosphoric acid in human milk 41 per cent. is in the form of phosphocarnic acid." Of the total phosphoric acid in cow's milk 6 percent is in the form of phorphocarinc acid. (See Siegfried Zeit. f. Physiol. Chem. XXII, 575, 1896, and Stoklassa ibid. XXIII, 343, 1897). Cow's milk has 4 per cent. sugar, woman's 7 per cent., both being identical as to composition. The fat of both is 4 per cent. That of the cow contains large quantities of volatile fatty acids which exist only in traces in that of women.

Cow's milk contains three times as much salts as woman's. The inorganic salts, while the same as to constituents, have entirely different proportions, that of the cow containing a relatively larger amount of calcium phosphate and a smaller amount of potassium salts and iron oxide. A cow yields as much citric acid daily as is found in two or three lemons. (Henkel, Munch. Med. Woch. No. 19, 1888, p. 328). Cow's milk always contains a larger number of bacteria than that of woman which is sterile.

Holt says that the excess of proteids in the food of an infant produces curdy stools and diarrhea. Rotch says that an excess of fat will produce vomiting and diarrhea; a lack of fat and we have not enough heat, poor digestion and nutrition and catarrh of the lungs and bowels soon follows. An excess of carbohydrates is productive of fermentation in the stomach and intestines,

whereby acids are produced and griping and diarrhea result. A lack of carbohydrates, and the proteids are more difficult to digest, a supply of heat is removed because carbohydrates are partly converted into fat.

Milk varies so enormously that a doctor does not know within thirty per cent. how much nourishment he is giving. The age and breed of the cow, as well as period since calving must be considered.

We come now to another class of diarrheal diseases, indigestion plus infection. "Cholera Infantum," says Holt, "is most frequently engrafted on a mild dyspeptic diarrhea." We have acute milk infection or choleriform diarrhea; peracute milk infection or summer or infectious diarhea. Good milk contains 300 bacteria to the drop after milking; when kept at a temperature of 45 deg. F. for 72 hours, it increases to 150,000 to the drop. A sample taken from an ill kept barn contained 2000 bacteria to the drop when taken, and when kept at 52 deg. F. increased to 16,500,000 in 71 hours. (Experiments in laboratories of N. Y. Board of Health). When cow's milk is not kept on ice in transportation from the cow to the home, the marvelous increase in bacteria will stagger our mathematical conception. Vaughn, of Ann Arbor, says that acute milk infection is poisoning with a substance more powerful and deadly than white arsenic.

The gastrointestinal mucous membrane is the largest gland in the body. In an infant one year old this gland corresponds to a tube fifteen feet long containing a suitable culture medium. We are frequently presented with a proposition of 20,000,000 bacteria to the drop, or 9,699,000,000 bacteria to the ounce turned loose to multiply on a gland fifteen feet long. The bacterial flora of the intestine of an infant suffering with milk infection represents a mass of vegetable life far in excess of our imagination.

Cow's milk is not a perfect nor an ideal food, but it is the best we have and when used in the proper manner is indispensible. In France, the experiment to raise infants on ass's milk failed, yet according to science, it only needed sweetening.

Cholera infantum is more closely connected with impure milk than any other form of diarrhea. "One of the greatest stumbling blocks in feeding" says Holt, "is the fact that many robust children in good surroundings have thriven in spite of the bad methods of feeding." Milk should not be over twenty-four hours old and should contain no preservative. It should be transported on ice during warm months or kept at a temperature below 45 deg. F. Cows should never be fed on distillery swill. Considering the filthy udders of cows from resting on dirty ground and the introduction into the milk of foreign matter after drawing, Dr. Backhaus calculated that 300 pounds of excrementitious matter were daily consumed in Berlin. In order to destroy the bacteria in milk, prominent among which are the bacilli of Shiga and Flexner, we boil it. Boiling milk, while destroying bacteria does not destroy toxines already formed. It renders the infant liable to scurvy. Some lactose is converted into caramel. The lactalbumin is precipitated and rises to the surface as a scum taking with it some of the fat and caseinogen. The casein is rendered less coagulable by rennet and appears to be acted upon more slowly by pepsin and trypain. The organic phosphorus is changed into an inorganic phosphate. Citric acid is partly precipitated as calcium citrate, and some lime salts which are usually soluble are converted into insoluble compounds. Certain changes occur in the fat; certain neutral ferments in fresh milk believed to be of value in digestion, are destroyed by the heat. The indigestion produced by these changes induce all varieties of diarrhea.

There is no evidence that points so strongly to cow's milk as a cause of diarrhea as the fact that the only way to save life in a large majority of cases is to withdraw every drop of milk for a period varying from twenty-four hours to five months. It is almost infanticide to wean an infant during the hot summer months.

Knoepfelmacher and Camerer have shown that there is more waste from cow's than breast milk, that the stools of bottle fed infants are more numerous and of greater bulk than of breast-fed. Koplik has shown that the ratio of increase in an infant fed on cow's and woman's milk is steadily greater in woman's milk. A frequent error in diet is weaning an infant too rapidly. Eight weeks should be required for the weaning.

Condensed milk is simply cow's milk from which a large proportion of water has been removed. As a rule, the milk is reduced to one-third of its original volume, so that all that is necessary to restore it to the original condition is to add twice the volume of water. Very often the cream has been removed by a separator, so that the product is condensed skimmed milk. Sugar is more frequently added as a preservative.

On the market we find (1) unsweetened and condensed whole milk, (2) sweetened and condensed whole milk, (3) sweetened and condensed skim milk. Number (1) when diluted with two parts water represents a good sample of pure cow's milk. The can when opened is apt to go bad, and must be treated as fresh meat. Number (2) contains so much sugar that when diluted

with two parts of water, we have 16 per cent. of sugar instead of 4 per cent. as in cow's milk and 7 per cent. in woman's milk. When diluted sixteen times, as recommended on the can, we have 3 per cent sugar, .5 per cent. proteids and less than one per cent fat. Number (3) contains almost no fat, and when diluted in the proportion recommended for infants the resulting fluid is very poor in proteids, and entirely unsuited for babies' nourishment.

Many cases of infantile summer diarrhea are brought about by excess of sugar. Lactose is readily split up by certain microorganisms with the production of lactic acid, a process which occurs in the souring of milk and sometimes in the intestine producing diarrhea (Hutchison, p. 108, 1903).

There is no doubt that an immense amount of harm is done to infants by the indiscriminate use of such milk. The only kind of condensed milk to be recommended is cow's whole milk without the addition of sugar. A disease of blood and bone follows the use of condensed milk too frequently.

There is a large class of infant foods on the market. Koplik says of them, "There is no infant food except modification of cow's milk which can be utilized as a substitute for the breast with any success." Certain types may be an adjunct to the baby's dietary. All of these foods show deficiency of fat and excess of carbohydrates. We must remember that cereals may successfully tide over an attack of diarrhea. The value of an addition of cereals to milk food can hardly be overestimated.

"Liquid peptonoids" contain 23 per cent alcohol (stronger than sherry wine) and cannot be considered a food. Beef tea as a food is a misnomer. Fothergill says, "All the bloodshed caused by the warlike ambition of Napoleon is as nothing compared to the myriads of people who have sunk into their graves from the misplaced confidence in the food value of beef tea." In these preparation the infant lives (if it does live) on its own fat.

Mechanical diarrhea is caused by substances taken as food which virtually act as a foreign body. Partly cooked rice, oatmeal and other cereals, fresh fruit containing seed, green corn, radishes, celery, cabbages or other vegetables, nuts and unripe fruit. Peristalsis removes the offending matter.

There is no doubt that the constitutional depression produced by high atmospheric temperature may seriously interfere with digestion, and that sometimes the thirst which excessive perspiration produces may lead to the giving of too much food which may be a cause of indigestion and diarrhea (Holt).

Further evidence of the disadvantage of cow's milk is pointed out by M. Remy in his *Notes Medicales sur le Japon*, that rachitis is never seen or heard of in Japan where the women have a remarkable abundance of milk, give no food to their children until the first year and continue to nurse their young until the age of five or six years.

Zweiback, cold bread or crackers taken with cow's milk seem to aid very greatly in its digestion. The coaguiation is not as dense, the clots are not as large and the condition is entirely different from the condition in which cow's milk alone is taken as a food. Milk and bread cannot be replaced an infant dietary.

Ice cold water is a common cause of summer diarrhea. Water is preeminently essential, but not ice water. When we consider that the human body is three-fourths water, and one-fourth solid matter, we can conceive the importance. The cry of the modern medical man in the summer is more water and less food.

The prevention of race suicide, such as now exists in France, consists more in decreasing the deaths of infants, when we consider as shown by Gustave Lejeal in the *Revue Universelle*, that "of the 850,000 children who are born every year in Paris, 138 000 die during the first year, the rate is 16 per 100." Drs. Budin and Variot have begun to see the solution of race suicide in the establishment of the institution known as the "Drop of Milk," an establishment for the proper feeding of young infants. Before a race considers the problem of increasing the number of births, let it consider the problem of decreasing the number of deaths.

The Attitude of Physician and Patient to the Science and Art of Medicine. *

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When one considers the number of subjects discussed in the annual addresses delivered by my predecessors; when one recalls the depressing assertion of the wise man, that "there is nothing new under the sun;" and when one reflects upon the difficulty of finding a new topic in which the physician and his patient would both be interested, one is tempted to exclaim that the words of the playwright—exeunt omnes—would be a fitting appendix to the first sentence of this address. Moreover, there would be the consoling thought that whatever might have been the nature of the essay (pardon the pun) the appendix could never assume any thing of an abnormal or inflammatory character. Usually employed to mark the ending of a tragedy or comedy, its healthy

function would be in this instance to promote peace and satisfaction.

The members of our Society, however, who from year to year are honored in being chosen to speak to the public and profession must be regarded as torch-bearers receiving light from those whoses torches have burned brightly, and placing, as each one hopes, a still larger flame in the hands of their successors. As the torch is passed onward, we desire that the flame be larger, and brighter, and purer—larger, that more and more may see; brighter, that they may see more clearly; purer, that what is seen may edify, uplift and last.

In no age of the world's history has knowledge been so rapidly and widely diffused as in the present. To the modern printing press, which appears endowed with almost human intelligence, messages are flashed over wires or through the atmosphere; and with amazing speed the printed words are conveyed to millions of eager and devouring readers Writers, lecturers and other disseminators of knowledge are springing up apace. Novels are multiplied like microbes. Books on art, music and general literature are well-nigh beyond computation. Theories and facts are chasing each other to a bewildering extent. Scientific wonders are born to-day, and to-morrow the world is petting and admiring the nurslings. The ears of the people are pricked up for the next new thing; their eyes are wide open and strained for novelties, and what was said by Demosthenes of the Athenians could appropriately be applied to the existing generation. The masses wish to know, and many of their number think that they do know, all that is to be known in special departments of knowledge. Curiosity is at red-heat. The smatterers will argue for hours with the erudites. The search for truth is untiring. The great army of critics is well equipped for its assaults upon the promulgators of error and of truth, while the quack and the charlatan, the imitators, impostors and parasites, the plagiarists and the pretenders, the sycophants and the gesticulators, the Don Quixotes and the Bombastes Furiosos, and the high priests and priestesses of sciences matured in a day are blowing the commercial horn and causing the faith of the enlightened and the orthodox to tremble at its very foundation.

In view of the foregoing facts a number of pertinent questions are suggested, the answers to which would require as many evenings of discussion. What is medical science and art? What is its present status? What is it accomplishing? What are its limitations? What will be its ultimate development? What is the present attitude of the profession and public to this branch of science? It is with the last question in particular that I wish to deal.

Medicine is not, and probably never will be, an exact science, although every year marks its progress and its approach to exactness. It is based upon the structure and functions of the body, the manifestations of disease, and the application of certain remedial measures, medicinal or otherwise, to morbid conditions. It is concerned with the operation of law, and necessarily there is only one set of laws with which every true physician is supposed to be acquainted. As a consequence, there is, and can be, only one science and art of medicine. The imperfect human mind may not comprehend these laws; and be the physician ever so learned and conscientious, he will frequently fail to accomplish what he desires. A master mechanic builds an engine or repairs one that is damaged; and, since he is dealing with certainties, he can, as a rule, be justly held responsible for a failure to accomplish the work entrusted to him. The data upon which his conclusions are founded are, for the most part, obtainable. He can peer into the intricacies of his machine. The completeness of his work depends upon a definite amount and a careful application of knowledge. Errors or defects are to be traced to some one's ignorance or negligence.

Not so, however, with medical science and art. The human body is not a machine which can be resolved during life into its component parts, nor is the physician a mechanic guided by mathematical rules. Many of the conditions pre-requisite to a doctor's success are wanting or out of reach. The idiosyncrasies of patients upset his calculations. Unavoidable—sometimes avoidable—variations in the purity and strength of medicinal agents are encountered. The overlapping or commingling of symptoms is confusing. These and other drawbacks to definite knowledge and methods are sources of that deferred hope which maketh the heart sick. Above all, disease conquers in the long run, and death results. Yet, withal, I once heard a man remark that he had promised to remunerate his physician for all the cures in his family, but to withhold the fee when a death occurred. The first fourteen verses of the thirty-eighth chapter of Ecclesiasticus are highly complimentary to medical art and its exponents, but it is difficult to understand the attitude of the writer when the fifteenth verse reads: "He that sinneth before his Maker, let him fall into the hands of the physician." The ancient law code of Khammurabi also plainly shows that in meting out a cruel punishment to the surgeon who was

supposed to have killed or mutilated his patient, the ancients were ignorant to a great extent of scientific laws and therefore devoid of the spirit of consideration and justice which expanded knowledge engenders.

In the profession of medicine there are two classes are workers—those engaged in the discovery and those engaged in the practical application of scientific truth. The former clasc plod in the stillness and isolation of their libraries and laboratories. Many of their theories burst and splutter like air-bubbles; many of their utterances travel no farther than their own lips; many of their publications are consigned to the waste basket. Unknown, for the most part, except in scientific circles, burning up their bodies and brains as they consume the midnight oil; often deprived of the comforts, if not the necessaries, of life; sleepless while those for whom they spend their energies are asleep; but withal hopeful, earnest, patient, calm and undaunted, they continue at their tasks and count themselves rewarded in the discovery of even one important truth. These men of profound learning and thought realize the immensity of the fields to be explored, the danger of propagating error, the gradual development of knowledge, the impossibility of attaining perfection at one bound, and the agony of an argument with ignorance, prejudice and superstitution. "Let one great truth be discovered," they exclaim, "and be cast upon the world. It may not travel far at first. It may appear to die. Some cannot understand it, others will antagonize it, a few will endeavor to suppress it, but live it must and will, since truth is immortal." Like the butterfly struggling from its humble dormitory, strengthened its wings by the effort, and endowed with new and higher powers for activity and usefulness, so truth lies until resurrected from its obscurity to assume its exalted place in the intellectual world. If virtue be its own reward, as the poet has so happily written, is not also the discovery of truth its own reward? What matters it then, to the honest man of science whether he be poor or rich, unrecognized or famous? It is all to him that he has given out something which is imperishable, or even a portion of what is to be a finished contribution to the great text-book of established truth.

The other class of workers is concerned chiefly with the practical application of medical knowledge to the cure or alleviation of disease. By day and by night they are prescribing or operating. Between times they are answering telephone calls, writing letters, making explanations, and discharging hundreds of incidental duties. Between these times they are supposed to be acquainting themselves with current medical literature, and between these times they are presumed to nourish their bodies with food and recuperate them with sleep. Occasionally they are found at church or turn up at the horse-show, and once in a great while one of the younger members may be observed dancing the Virginia reel or leading a german.

Such, in part, is medical science and art, and such, it is safe to assert, the characteristics of its disciples. The science is imperfect, but ancient, honorable, life-giving, pain-alleviating, disease-preventing, and humane in the broadest sense of the word. It is governed by law, and those who expound and apply the laws are devoted and self-sacrificing men and women. Their aims are unselfish, their motives good, their ideals noble, and their worth to the community indisputable. Indeed, the jesters have called them necessary evils. Like their science, they are imperfect and make no claim to infallibility, being frequently credited with what they do not do, and not credited with what they do accomplish.

In this age, the large majority of those who invoke the resources of medical art are intelligent, reasonable and appreciative. As readers and thinkers they believe in the benefactions of science and in the physician's ability to cure or mitigate many of the diseases with which the human body is affected. By them the doctor is honored and assisted in his work, and by them hospitals and laboratories are endowed. Noble-minded and generous-hearted persons are establishing life-saving stations far and wide, and without their moral support the advancement of medical science would be seriously hindered. They repose implicit trust in their attendant, believe that in medical matters he knows best, and are willing to forgive and forget when he makes a mistake or falls short of his undertakings. Like the physician, however, the patient has his faults and frequently does wrong when he intends to do right. Medicine, the doctor and the patient are open to criticism, but all are progressive and earnestly striving for the coveted goal.

Omitting any mention of the so-called members of our fraternity, who, like certain members of all vocations, are inexcusably ignorant or willfully dishonest, and passing by those of the human race who are deliberately opposed to all that science wishes to teach them or do for them, I wish to venture a few remarks upon the attitude of numbers in the profession and numbers out of it who are unintentionally impeding the march of science, obstructing the work of the physician and jeopardizing the welfare of the patient.

Is it possible that any medical man could plead guilty to this charge?

When the brilliant and lamented Oliver Wendell Holmes asserted that, if all the drugs in the world were cast into the sea, it would be much the better for the people and much the worse for the fishes, he said a very humorous thing, the meaning of which truly intelligent readers would not distort. Proceeding, however, from one whose sayings are so widely read and whose influence is so extensive, has not the remark been productive of unjustifiable and practically applied skepticism on the subject of medicine? Wit and humor, irony and sarcasm are keen-edged tools cutting both ways sharply; while ridicule, cartoons, and parody, in the use of which the American people are quite proficient, can destroy or impair what is good and valuable as effectually as a bolt of lightning.

It is not an uncommon thing to hear physicians advising young men not to study medicine; and while it is true that at the present time the heeding of this advice might redound to the welfare of both public and profession, it is equally true that unmeasured advice of this kind may have the effect of bringing medicine into disrepute and of deterring from the study of it young men peculiarly qualified for its duties and capable of attaining to its highest usefulness and honor. Let us not be the means of suppressing, with thoughtless comments or ill-timed counsel, "hands that the rod of empire might have swayed, or waked to ecstasy the living lyre."

It has been predicted by one of the seers that the time is not far distant when practical medicine will be represented only by surgeons and trained nurses. It is barely possible that this is the prophetic utterance of a surgeon; but even physicians have been known to exclaim that the longer they practiced their art the less they believed in drugs. The experienced and wise doctor has learned to rely upon a few drugs carefully studied and judiciously administered, and to depend largely upon the healing powers of Nature for the cure of disease; but does not the man of science stultify himself, expose his ignorance, or exploit his laziness, who expresses a disbelief in the physiological action of drugs and avows his belief in a large number of preparations of which he knows comparatively nothing and the use of which entitles him to a just sentence from the judgment-seat of science? It gives me pleasure to inform my hearers that the last mentioned species of doctors will soon be extinct.

Not only on the therapeutic side of medicine, however, do we find skepticism displayed, for there are excellent medical men who incur a serious responsibility by refusing to accept the plainest teachings of pathology, bacteriology and other kindred sciences. The human mind is sprinkled with errors, and a number of the best minds may be unanimous in letting out the same piece of error; but when a large majority of the ablest and most logical intellects in the scientific world are agreed upon what they believe to be incontrovertible facts, it becomes our manifest duty to disprove their teachings, or else to accept them and put them into practical operation. Let this be done, and we shall not hear a man who is supposedly proficient in one branch of medicine belittle the attainments or repudiate the teachings of another who is equally proficient in his own special line of research or practice. Surely if the physician doubts, or acts as if he doubted, the reality of what the well-informed non-professional credits him with believing, we could not wonder if the public should make remarks derogatory of our vocation.

The attitude of the physician to organization, ethics, and germane subjects is of paramount importance. The question of a re-organization of the profession of the State is to engage the serious consideration of our Society at this session. It is not within my province to enter into the merits of the proposed changes, but it may not be amiss to state that our influence and efficiency as practitioners depend largely upon measures which we concert as an organized body. Unless the organization be the best possible, and unless the individual members abide by the regulations, decisions, and recommendations of the Society, we can not hope for the success which loyalty and harmony always produce. Much that we could have done in the past remains undone for want of that unanimity which organization should necessarily imply. It is well to observe the rule, "Be not the first by whom the new is tried, nor yet the last to lay the old aside." If what is right and expedient and feasible be presented to us, let us adopt it and make another step forward; but let us "prove all things" and "hold fast to that which is good." Others have sounded a warning note with regard to the threatened decadence of our code of ethics, and have frequently and ably pleaded for the maintenance and observance of such enactments as will promote the purity and honor of our calling. Let those voices not die out, or be smothered in the ambiguous phrases of larger organizations after whom we are supposed to pattern. The only true success of an organization, as well as of the individuals who compose it, is character.

Even more important, however, than the medical man's opinion of his science and art

is the attitude of the vast reading and thinking public. Ignorance of technical knowledge on the part of the laity is, in a great measure, taken for granted and can not be held discreditable; but when the ignorant ridicule, caricature or minify technical knowledge, they not only retard its progress, but also suffer a retro-active injury. In none of the professions is a little learning so dangerous as in medicine, and physicians are aware that a portion of their work consists in the effort to undo the consequences springing from the assertions, the advice, or the meddlesome interference of the well-meaning but uneducated and misinformed would-be practitioners of medicine. He who attempts to do anything for which he is unfitted, assumes more than ordinary responsibility; but he who, stepping out of a sphere of activity for which he is prepared, leads his fellow-men into irremediable or fatal error must be regarded as an involuntary criminal.

I was once walking on a pleasant afternoon along the banks of the Mississippi River. The Arkansas plantation had been inundated, but the overflow was subsiding, and the treacherous stream had fallen within its banks. Noticing a canoe tied at the water's edge, the idea seized me to row across to the opposite shore. I went up the stream some distance close to the banks and then headed boldly for the State of Mississippi. After pulling steadily a while with my head tucked down, as a great many people's heads are, I looked up and found myself rapidly leaving both States and well on the way to New Orleans. By dint of hard pulling the Arkansas side was reached, but how far below the starting point it is needless to state. Physical strength and the river-current had been miscalculated. Ignorance of the exact nature of the problem to be solved and sheer inability to solve it had those conditions been known were the means of teaching me a lesson which has never been forgotten. This little story may be useful to some who administer remedies without being possessed of the extended knowledge which impresses the danger of drugs as well as of disease.

The distortions of scientific teaching as they appear in newspapers, periodicals and general current literature would be ludicrous if they were not so pernicious. The non-professional publications are accomplishing much good by the dissemination of practical truths, but it behooves the publishers to exercise thought and discrimination in the laudable desire to instruct and benefit their readers. Scientific men are frevuently mortified, humiliated and discouraged in huving their assertions disbelieved or their recommendations for the public weal disregarded by those whose only excuse is ignorance, superstition, prejudice, obstincy, or moral cowardice; and there is hardly a physician in this audience who has not witnessed the direful consequences of a failure on the part of others to believe in what he says, what he has done, or what he wishes to do. The writer has seen thirty-five or forty persons prostrated at one time with typhoid infection in consequence of a stubborn refusal on the part of a man weighted with heavy responsibilities to heed the counsel of a sanitarian. So long as the doctor does not gather manna in the morning he must adopt business methods, but his highest duty is to teach people how to keep out of his hands. Typhoid fever, for instance, is a preventable disease. Its very existence, as one has said, is somebody's fault. Sanitary science has demonstrated how it can be stamped out. We continue, however, to make money, build temples, lay out parks, provide free concerts, establish libraries, and do many other things which are useful and ornamental while we contemn the plainest axioms of science and allow the unseen but destructive army of microbes to play havoc in our homes. If half of the money wasted on aesthetics and non-essentials were appropriated to the prevention of disease, what an addition there would be to the physical, mental and moral excellence of the people. When the opinions of the medical men in the army and navy are better understood and respected, the lives of our soldiers and sailors will not so often be sacrificed; when State and municipal officials act upon the suggestions offered by boards of health, the community will be less "afraid for the pestilence that walketh in darkness, and for the destruction that wasteth at noon-day;" and when the preposterous and mercenary guarantees of the quacks fail to find a lodgment in the columns of our journals, the wealth as well as the health of the people will be markedly enhanced. In this connection it is encouraging to note an opportune editorial on volunteer doctors in a late issue of our morning paper and an exposure in one of our most popular monthlies of some of the methods by which gullible and unsuspecting sick persons are seeking to restore their health. American liberty is sweet, and what the educated physician prescribes is frequently bitter; but blessed be those who have read the articles referred to and been awakened to even a twilight conception of their credulity and danger.

It is hardly necessary to refer to the existence of societies organized to prevent vaccination, experiments upon animals, and other procedures which medical science has instituted for the relief of human suffering

and the saving of life. The publications of these societies may be inspired by humane motives, and a portion of what has been written may be true; but no unbiased mind can fail to have its pity or its risibles excited by the amount of ignorance and fanaticism which the opposers of medical progress display. I leave it to this audience to determine who is the more cruel—he who sacrifices a guinea pig for the discovery of an antitoxin, or he who allows a human life to be sacrificed instead of the guinea pig.

I wish to tap lightly on the shoulder my friend who mocks at medical ethics, not realizing that it is founded upon the delicate problems and intricacies of practice, upon common sense and the Golden Rule, nor is it possible for me to refrain from making a gentle thrust at certain persons, beginning with that well-meaning and kind-hearted fellow who greets you with "Hello, Doc," so loudly that the community is startled and ending with savants like Moliere, who said to Henry the Fourteenth, and therefore to the world, that he sent for his physician, talked with him, received the prescription, refused to take the medicine, and recovered. I would like to remind a great many worthy members of society of the ways in which they are unconsciously doing harm to a profession that is endeavoring to do them good; but much must be left unsaid which might appropriately be mentioned.

The relation of the public to hospitals and medical education is intimate and its special importance at this time can not be overestimated. The gratuitous services which every community expects the profession to render in the hospital wards or in private rooms are attended with incidental expenses which medical men are unable to meet and which they, in turn, have a right to expect the community will defray. In the populous and wealthy centres of this country, bequests and endowments for the relief of indigent and deserving cases are large and numerous. Much is being done in our own neighborhood, but much remains undone that must be done if practitioners of medicine and its allied sciences are to satisfy the increasing demands made upon them. The medical student in this age walks for four years on a rugged incline. State examining boards, which used to confront him only after his graduation, are now co operating with legislatures and national organizations in the endeavor to fix the standards for his admission to the schools. If these requirements become general, the number of students and colleges will be lessened but not proportionately so the expense of preparing the embryo doctors for their life.work. The cost of maintaining laboratories for research and investigation is high, while the progress of science will make it higher. Men and women making discoveries that bear directly upon the betterment of mankind have little time to devote to business matters. Tuition fees should not be intended to be sufficient to furnish their workshops and afford them a competent support while they are teaching and experimenting. Professors can not equip colleges and free wards in hospitals and equip themselves at the same time. If scientific men deny themselves foe the sake of the public, then they ought to be materially assisted by the public. Munificent endowments are being made for the training of the young in academic branches, for the comparatively unapplied sciences, for art, for physical culture, and for aosthetics. Be it not ours to withhold what, as individuals, we can afford from those who are ready to devoie their time and talents to the eradication of disease and the happiness of human life. Thind of what Harvey and Pasteur and Lister and Simpson and Roux and Virchow and Sims and O'Dwyer and Kitisato and hundreds of others have done and are doing. Think of how much more they might have done had the world realized who they were and what they were doing. Strive more earnestly, ye people, for the moral and spiritual elevation of mankind, but build up the physicial temple, repair its defects, vanquish its foes and adorn it with the beauty and grace which science is able and willing to confer. The aim of the Spartans was noble, but how much nobler our methods. Let us realize more and more the connection between disease and mental and moral degeneracy, and let us take the road to which the steady finger is pointing.

The incubus of annual State and city license taxation now resting upon the profession should be lifted by the unanimous and vigorous action of this Society. Nearly all of the States and cities of the Union, recognizing the incalculable amount of money saved to the public treasury by the gratuitous practice of physicians and surgeons, have deemed it unjust to impose a tax upon medical men for the mere privilege of endeavoring to make a support. The principle is inherently wrong and applies to other callings than the medical. Ministers, teachers and editors, for instance, are exempt. Why not the doctors? The pecuniary burden is not the main source of complaint, but the failure of the law-makers to act in accordance with the dictates of justice and from a true sense of appreciation of the benefits conferred by the profession. Furthermore, the fees, or absence of fees, allowed by statute for commissions of lun-

and College for Graduates in Medicine.

acy, expert testimony, and other public services, are such as to degrade our vocation and tempt the physician to either shirk or half-way discharge his duty. No favors are requested; but the attitude of both public and protession to this question must undergo a radical change before the estimate placed by the laity upon medicine shall be correct and before the advantages of our science and art shall be commensurate with its development and opportunities.

In one sense the physician has finished with the patient whose health he has been the means of restoring; but if he does nothing else, his mission to the individual or the community has not been fulfilled. The restored patient, no longer needing the personal ministrations of his attendant, cannot live without incurring certain obligations to medical science and to physicians as a body, The value, the power, and the benefactions of medicine cannot be fully realized without the respect, the support and the hearty and intelligent co-operation of the public, and if the doctor wishes to measure up to his responsibilities and obligations, he must not be content with only a special application of his knowledge at the bedside or operating table. Inasmuch as his pathway is not too thickly strewn with roses, let the public take care not to bestrew it with thorns. The physician may err betimes in not diluting his technical knowledge for the general welfare, and the people may need a general education sufficient to teach them their ignorance of technical matters.

Let us who are in the profession study it more deeply, believe in it more sincerely, uphold it more strenuously, practice it more faithfully, and educate the public more zealously. At the same time I appeal to the public to become acquainted at least with the underlying principles and the objects of medical science and art. What they do know let them know accurately. Let them exalt true science instead of "science falsely so-called." Do as Tennyson says, "Ring out the false, ring in the true," for there is no real scientist who would not cheerfully be awakened out of a much needed sleep to hear the intonations of such a bell. Medicine owes much to the world, but bear it in mind that the world owes much to the seekers and finders of truth, who, perchance, have grown old and weary and, perhaps, destitute in their labors for humanity.

In conclusion permit me to express the hope that, in the discussion of an all-important subject, my remarks may not be misunderstood or regarded as hypercritical or censorious. Far be it from me to advocate a mere limitation of the public's knowledge on any subject, to unduly exalt the attainments of medical men, or to condone their shortcomings. My sole purpose is to emphasize the evils resulting from the lack of an accurate acquaintance with scientific knowledge and methods on the part of many who claim to be its possessors, and to stimulate them to the acquisition of information which will enable them to appreciate science and join hands intelligently with its professed exponents. Life is too short and its problems too serious for the blunders of the novice or the pretender. Would that it were longer for those whose reasons teach them that they cannot know and practically apply every department of human learning.

I picture to myself a glorious time when there shall be a mutual understanding between medical men and the remainder of mankind. In that day, science, perfected as far as possible, shall be seated on a throne erected by her trustful beneficiaries. Clad in robes of white, dignified in posture, calm in her demeanor, hopeful in her lineaments, and successful in her struggles, she displays in her countenance no trace of resentment or of discouragement. For her the night of trial and sorrow has passed, and she looks with gratitude and approval upon the learned, and generous, and faithful throng whose victories she has helped to win, and who, in turn, have written victory upon her unsullied brow.

Post Operative Femoral Thrombo Phlebitis *

By Lewis C. Bosher, M. D, Richmond, Va., Surgeon to Memorial Hospital.

Any pathological condition that by its unexpected advent after a surgical operation may interfere with the otherwise "uneventful recovery" which, up to a certain time, has confirmed the favorable prognosis given by the operator must be of interest to the surgical profession.

Femoral thrombo phlebitis is a complication which may appear without warning after abdominal operations, at times coming on when the patient is about ready for discharge, or even after discharge, and since there are some disputed points in connection with the affection, the following cases are presented, together with a brief discussion of the most salient points in connection with the lesion which they illustrate.

The seven cases here reported, all of which were within the past three years, occurred in the services of the writer and his colleague, Dr. George Ben Johnston, at the Old Dominion and Memorial hospitals. Since they were the only instances of this complication during seven years, in the

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course of a large number of abdominal operations, undertaken for a variety of pathological conditions, it is seen that, while the affection is frequent enough to demand that the possibility of its occurrence be borne in mind in all abdominal operations, still it is by no means common.

The usual history of post-operative thrombo-phlebitis, as seen in the cases here reported, as well as in those elsewhere published, is that it is liable to follow operations involving abdominal section, regardless of the lesion for which operation is undertaken. If infection plays any part in the development of the lesion, this is seldom shown by other symptoms, for in most cases the wound heals aseptically and the progress of the case prior to the appearance of the phlebitis is otherwise satisfactory.

At some time after the first week, and most commonly about the end of the second week, the patient complains of pain along the course of the femoral vein and, on examination, there is found tenderness, inflammation of the vein, swelling and edema of the limb. The temperature and pulse rarely depart markedly from normal, and, indeed, there is little beside the local symptoms. Under appropriate treatment the symptoms slowly subside, and recovery is the rule, without any untoward sequelae.

The left side is most commonly involved. Of the seven cases here reported, six were on the left side. In Clark's cases, the left limb was affected in twenty-five, the right in eleven and both legs in five. In four cases the operation was confined to the right side with the occurrence of the thrombus in the left leg. In two cases reported by Willy Meyer, the left leg was first involved and the right became affected later on, when the symptoms on the side first involved had nearly or completely disappeared. Vanderveer's four cases were all on the left side.

The complication does not appear until at least a week after the operation. Of thirty-six cases chronologically tabulated by Clark, the earliest was eight days and the latest thirty days after operation, with eighteen of the cases (fifty per cent.) appearing from the thirteenth to the seventeenth day, inclusive. Vandeveer's cases occurred between the sixth and the sixteenth day. Of the seven cases reported by the present writer, the earliest was seven days and the latest thirty-two days after operation.

The chief points of interest in connection with post-operative thrombo-phlebitis relate to its origin, since the diagnosis is always evident, the prognosis favorable and the treatment simple.

The etiology of the affection is a question concerning which there is at present a decided difference of opinion, and the subject is by no means settled. In order to understand the reason for the conflicting views held by different writers it is necessary to consider briefly the changes which scientific opinion has undergone in reference to the relation to each other, as cause and effect, of thrombosis and phlebitis in general.

Hunter and Cruveilhier taught that inflammation of the vein was the primary lesion and that this gave rise to the thrombosis. This theory was generally accepted until the middle of the last century, when Virchow, as the result of extended study, reversed these teachings and gave to thrombosis the causative role. As a result of his views, the text-books for many years thereafter laid great stress on thrombosis and had little to say of phlebitis. This was the prevalent opinion until the natural change brought about by the advent of bacteriological science, and during recent years we find the predominance of authority regarding the inflammation of the vein (itself of infectious origin) as the primary lesion and the thrombosis as a sequel.

The above brief historical sketch applies to the subject of thrombosis and phlebitis in general. Regarding the etiology of the special form of thrombo-phlebitis dealt with in the present paper, there have been no such changes of opinion. This is natural when we recall the fact that operations involving abdominal section are the ones followed by this complication and the further fact that abdominal sections were not performed, to any great extent, before the days of Listerism, itself a child of bacteriology. Hence post-operative femoral thrombophlebitis first attracted attention when the theory of the infective origin of thrombophlebitis in general was in the ascendency. Thus we find, at least until recent years, that writers almost without exception, held to the infectious origin of the trouble and laid stress on phlebitis as the cause of the thrombus. It is necessary to recall these facts in order to understand why it is that the infective theory has only of late been called into question.

Regarding the etiology of post-operative thrombo-phlebitis, we have therefore at the present time two conflicting theories. According to the first, the lesion starts as a phlebitis, due to infection at the time of operation, while the second theory regards thrombosis, due to traumatism, as the primary lesion which, in turn, is responsible for the inflammation of the vein.

According to Clark, who is an ardent supporter of the latter theory, injury to the epigastric veins by retractors is the cause of the trouble. He maintains his position by

an excellent line of argument, supported by critical analysis of forty-one cases, claiming that infection cannot be the determining factor, because in his long series of cases septic operations were not as frequently followed by phlebitis as were aseptic cases. In support of his position that the epigastric veins are the starting point, he calls attention to the fact that "out of hundreds of plastic operations, ranging in extent from a simple trachelorraphy to the most extensive resection of the vagina, rectum and cervix, not one case of femoral thrombophlebitis has been noted." The above are the chief clinical reasons for his position, but on the theoretical side he lays stress on the anatomical relations of the epigastric veins, which enter the femoral vein at an obtuse angle to the blood current, thus giving rise to an eddying motion of the blood, which von Recklinghausen advances as a most favorable condition for the formation of a thrombus. Welch regards von Recklinghausen's theory as a "valuable contribution" to our knowledge of thrombosis, and both he and Clark explain the occurrence of femoral thrombosis on the left side more frequently than on the right as being due to the more difficult return flow from the former, in consequence of the greater length of the left common iliac vein, its passage beneath the right common iliac artery, and probably to pressure upon this vein by a distended sigmoid flexure or rectum.

As these cases almost invariably terminate in recovery (except in the presence of further complications, in which case no fair deduction could be made), there is no opportunity for post-mortem exominations to decide this question definitely. As Welch truly observes, "what is needed is an anatomical and bacteriological examination of the thrombi in these cases; but as the termination is usually favorable, the opportunities for such examinations are necessarily rare." The same writer further directs attention to the fact that even the finding of bacteria in the thrombus, *post-mortem*, would not necessarily prove its infectious origin, since this might well be due to an invasion of the tissues during the time immediately preceding death, as pointed out by Flexner in his article on terminal infections.

The occurrence of femoral thrombosis in typhoid fever, influenza and other infectious diseases, as well as in post-mortem infection, simply proves that the lesion is at times of undoubted infectious origin, while the fact that under these conditions, too, the left leg is the more commonly affected, is due to the same anatomical peculiarities as have been above pointed out. The similarity of the lesions, in other words, argues for similar causes of extension into the left femoral vein rather than for necessarily similar original cause.

While the present series of cases is too small to enable the writer to attempt to decide absolutely between the above theories, it has seemed to him, in spite of the preponderance of authority in favor of the septic theory, that the symptoms presented by his cases were not such as are observed in phlebitis of infectious origin. The absence of other symptoms of infection, either local or general, the slow onset of the trouble, the fact that pulmonary embolism does not occur, as would be likely to happen occasionally from breaking down of a septic thrombus, and the almost invariably favorable termination of the trouble, all seem to favor the traumatic theory as the correct one in the vast majority of cases of post-operative femoral thrombo-phlebitis.

Regarding treatment there is little to say. These cases almost invariably terminate in recovery. As to prophylaxis, if the infective theory held by most surgeons be correct, asepsis in operating would thus assume, if possible, additional importance. If we accept Clark's theory of injury to the epigastric veins by means of retractors, care in the use of these instruments may accomplish much. The interposing of sterile gauze between the retractors and the soft tissues, a practice now common with some surgeons, would thus seem to be a rational and advisable procedure, for this as well as for other reasons. Needless manipulation and unnecessary bruising of the tissues should also be avoided. Elevation of the foot of the bed, especially in anemic subjects, after operation, as has been advised by Lennander, can do no harm and may be of prophylactic value by favoring the return circulation.

As to curative measures, these are largely negative. Palpation is to be performed only when absolutely called for, and then with the greatest care, on account of the possibility of dislodging a portion of the thrombus and thereby causing pulmonary embolism. Complete rest in bed, elevation of the limb, enveloping the affected leg in cotton, held in place by a lightly applied bandage, and the application of glycerine and belladonna, or belladonna and mercury ointment, will usually result in complete recovery. The patient should not be allowed to leave bed or to undertake any muscular effort for some time after complete subsidence of all local symptoms. The wearing of an elastic stocking during convalescence will give support to the limb and add to the comfort of the patient.

The seven cases referred to in the above

paper are here appended. The first three occurred in the writer's service, the last four in the service of Dr. George Ben Johnston:

Case I.—Mrs. F. G., white, age 25 years. Admitted to Memorial Hospital, October 21, 1903. Diagnosis, right ovarian cyst. October 24th. under chloroform and ether anesthesia, through a median abdominal incision, the tumor was removed. An appendectomy was performed at the same sitting. Abdominal wound closed by through and through sutures of silk worm gut. Bowels moved freely on the second day after operation, and on the tenth day the stitches were removed. Abdominal wound healed by primary union. Fourteen days after removal of the cyst, patient complained of feeling badly and temperature began to rise (100 deg. F.). Pain was experienced in left thigh and leg, and a swelling over seat of left iliac vein was discovered. Typical phlebitis, with decided tenderness over the course of the femoral vein, and swelling of the left thigh and leg developed. Temperature varied from 99 to a little over 100 deg. F., during the attack of phlebitis, which lasted four weeks. Rest, elevation of the limb, and its envelopment in cotton, with application of ointments, constituted the treatment.

Case II.—J. B. V., white, male, age 22 years. Admitted to Memorial Hospital on the evening of April 9, 1904, with a diagnosis of acute appendicitis. Temperature on admission 103 deg. F., pulse 120. Patient, under gas and ether anesthesia, was operated on within an hour after entering the hospital. Appendix was found to be gangrenous and perforated, some pus having escaped into the surrounding tissues. Removal of appendix, insertion of gauze drain, and partial closing of the wound with through and through sutures of silk worm gut completed the operation. Drain removed in a week and sutures at the end of ten days. Patient was discharged from the hospital in twenty-five days after his admission. In about three days after reaching his home he began to complain of pain and swelling in his left thigh and leg. His attack of phlebitis did not prove a severe one, but responded very promptly to rest, elevation of the limb, and bandaging, in about three weeds.

Case III.—Mrs. McG., white, age 35 years; married eight years; has three children; no miscarriages; labors all normal. Admitted to Memorial Hospital November 2, 1903. Diagnosis, cyst of the right ovary and laceration of cervix and perineum. November 3d, under chloroform and ether anesthesia, cyst was removed and the cervix and perineum repaired. Primary, aseptic healing of the abdominal wound and satisfactory healing of the repaired lacerations. Four weeks after admission to the hospital, patient was discharged in good condition. Four days after reaching her home, patient had a chill and later a rise of temperature, pain being complained of over right femoral and iliac veins. Still later a tumefaction could be made out just above Poupart's ligament. Temperature reached about 102 deg. F. Pain extended down the right thigh and leg, along the vessel, and marked swelling of the limb was noticed. The symptoms were well marked, necessstating the patient's confinement to bed for nearly three weeks. Under rest, elevation of the limb, and ointments, the symptoms subsided and good use of the leg resulted.

Case IV.—Miss S. F., white. Operated upon at the Old Dominion Hospital, May 22, 1903, for catarrhal appendicitis. Chloroform anesthesia. Primary, aseptic healing of abdominal wound. Seven days following operatian first symptoms of thrombophlebitis observed. Left iliac vein, and later femoral, became involved, followed by marked tenderness along the course of the vessel and pronounced swelling of the limb. Symptoms slowly subsided under rest, elevation and application of cotton to the limb. Attack lasted nearly six weeks, with moderate run of temperature, the patient's limb being still slightly swollen, necessitating the use of an elastic stocking, when she was discharged from the hospital.

Case V.—Mrs. M. D. S., white, age 44 years. Diagnosis, chronic appendicitis. Operated upon July 5, 1904, at Memorial Hospital, under gas and ether anesthesia. As pus was present, a stab wound was made in the right flank to secure drainage. Anterior wound healed by primary union. A small quantity of pus escaped through the stab wound for about a week, after which the wound closed by granulation. July 16, twelve days after operation, patient complained of pain in left groin and thigh, and examination revealed a small tumefaction just below Poupart's ligament, on the inner side of the left thigh. A line of inflammation extended from the tumefaction, along the course of the vessel, to just above the ankle, tender to pressure and cord-like to touch. The usual swelling of limb was also noted. The attack lasted a little over two weeks, the temperature during the sickness varying frym 99 to 102 deg. F. Good use of limb resulted.

Case VI.—Miss B. L., white, age 23 years. Admitted to Memorial Hospital, July 5, 1904. Diagnosis, chronic appendicitis. July 7th, operation was performed under chloroform anesthesia. Aseptic healing of abdominal wound. Eleven days later, patient complained of pain and swell-

ing in left thigh. Typical symptoms of thrombo-phlebitis followed, the temperature ranging from 100 to 101 deg. during the attack. Patient discharged from hospital August 12th, with temperature normal, but still complaining of pain and swelling on walking.

Case VII.—Dr. S. —., white, age 28 years. Admitted to Memorial Hospital June 8, 1904, with a diagnosis of chronic appendicitis. Operation performed under ether anesthesia. Aseptic healing of abdominal wound. Patient was discharged from the hospital July 7th, one month after the operation. Several days later, after he had returned to his home, symptoms of thrombo-phlebitis developed in the left limb, the attack pursuing a course not unlike that observed in the foregoing cases,

Intestinal Perforation in Typhoid Fever. *

By Hugh M. Taylor, M. D., Richmond, Va.

Within the past two months I have been called upon to operate upon two cases of typhoid perforation and to see one case of intestinal hemorrhage which was at first thought to be a case of perforation. I rarely discuss this subject with medical colleagues who cannot recall deaths in their practice from suspected perforations which were not operated upon, and even in the newspapers we not iufrequently see notices of deaths from peritonitis and perforations complicating typhoid fever. An occasional epidemic of cholera, yellow fever or bubonic plague that killed 50,000 people in the United States each year would create widespread terror in the medical and civic government. Every year more than 50,000 of the young manhood, womanhood and childhood in the United States alone, die from typhoid fever. The United States Marine Hospital Report, page 1008, 1896, estimates that there are 500,000 cases and 50,000 deaths. (Victor Vaughan in a recent address says: "There die in this country every year from typhoid fever alone not less than 50,000 people.") These reports are made up from the reports of the larger towns and cities in which mortality rates are compiled. They do not include the thousands of cases which occur in the country, and of which no report is made. Many more than 500,000 cases obviously occur from typhoid fever in the United States each year and, assuming a death rate of 10%, many more than 50,000 deaths ensue. Preventive medicine has accomplished much in the field of typhoid fever—it has yet much to accomplish. It is claimed that 3 per cent. of typhoid fever patients die from intestinal perforation. Three per cent. of 50,000 is 15,000. More than 15,000 deaths from typhoid perforation in the United States each year. Writers have estimated that not more than 95 per cent. of typhoid perforations will die without operation, others place the death-rate at 99 per cent., Greig Smith at 100 per cent. Possibly a perforated caecum or appendix from a typhoid ulcer may result in a circumscribed abscess, in fact, this is not infrequently the case. More than 80 per cent. of complete perforations occur in the last eighteen inches of the ileum, and I fully agree with those who think in such cases we may expect a mortality of 100%. This being true, more than 15,000 cases of typhoid perforation should be operated upon in the United States each year. In 1900, Dr. Keen could only tabulate the reports of 158 cases operated upon. In April, 1903, Frank reports but 352 cases operated upon in the world. Of course there are unreported cases operated upon but they are comparatively few in number. Contrast this statement with the plea that more than 15,000 cases should be operated upon every year in the United States alone and you have my excuse for persistently bringing this subject before you for discussion. As a matter of fact, it embarrasses me to bring my statistics before you—they compare so unfavorably with the achievements of other surgeons in this field and some of which I shall present you to sustain the claims for operative intervention in all cases of typhoid perforation. I am optimistic to an extreme as to the value of surgical aid in typhoid perforation, not from my own experience, but from a study of the opinions and results secured by others. My cases include seven operations for complete perforation all of the lower portion of the ileum, and but one recovery. It is not a difficult matter to explain my high death-rate. My medical friends have not solved the problem of how to make an early diagnosis of perforation. With but two exceptions, my cases were eleventh-hour cases and several of them practically moribund when operated upon. I feel it my duty, as I think it is the duty of every surgeon, to give even these forlorn cases the only chance left them. Greig Smith, in connection with this question, pertinently asks, "Who can always tell when a patient is moribund?" In all, but two, of my cases, I was not called upon to operate until after the first twenty-four hours and, in all, widespread, so-called general peritonitis, was conspicuously present.

What has surgery accomplished in the treatment of typhoid perforation? "Twenty years ago, says Dr. Osler, we would fold our hands and murmur that all was over," when we were brought to face a case of typhoid perforation. Recently Dr. R. G.

Le Conte reports three consecutive successful cases, Dr. W. D. Hoggard, Jr. reports three cases and three recoveries—100 per cent. What a stimulus; and more than 15,000 cases in the United States to operate on each year. Certainly the profession at large did not appreciate the importance of this subject until the advent of Dr. Keen's well-known paper in 1901 in which he showed in 158 cases a mortality of 23.4 per cent., and this in spite of the fact that it included late operations in many instances and by inexperienced operators in not a few. Since 1900, our confidence in operative intervention has, with cause, steadily grown. Notably due to statistics from Drs. Warren and Cobb 25%; Dr. Osler 37.5%; Dr. Cushing 41.6%; Dr. Armstrong 37 5%. One operator—Eschner—has the proud distinction of saving 50 per cent., fourteen operations and seven recoveries. More than one series of 40 per cent. of recoveries has been reported and it is confidently predicted that an early diagnosis and operation to prevent septic peritonitis will result in the saving of from 50 to 60 per cent. Fifty per cent. of more than 15,000 is an indication of the possibilities of surgery in this field in the United States alone.

By far the most important phase of this subject is the early diagnosis as it implies preventive surgery. How to make an early diagnosis and how to treat the late sequences of typhoid perforation may well be the limit of this paper. The former, the early diagnosis, is the more important of the two for a greater number of early diagnoses necessarily means fewer late cases, with gross intra-peritoneal lesions, to operate upon. The diagnosis of the late case is easily made. We have the usual symptoms of general suppurative peritonitis. The answer to the first question must be solved to a large extent by the general practitioner. As a rule, only the family physician has the opportunity to study the initial symptoms of perforation. Certainly my experience sustains the assertion that the surgeon is very frequently not called to see the case until gross consequences of perforation are pronounced. I can not too emphatically agree with those who have urged the co-operative study in all suspicious cases by the general practitioner and surgeon. More cases are undoubtedly being recognized. A vast number are not recognized. If we keep in mind that three per cent. of all the cases of typhoid fever we are called upon to treat will have perforation, we will watch more intently for the first symptoms. Some sage has remarked that the matter of diagnosis is largely guess work, but adds that the practitioner who is looking for a trouble and has its symptomatology uppermost in his mind will more frequently make the early and correct diagnosis.

In typhoid perforation, as in many intra-peritoneal morbid conditions, we may expect to meet with typical and atypical cases. In some, the clinical picture will be unmistakable. In others, it will be blurred beyond recognition. If when called to a case we are told that it had run an uneventful course, that there had been no pronounced abdominal symptoms, no mental confusion or delirium to mask an expression of symptoms, that the patient was—up to a given time—comfortable and, while voiding or having an action, was taken with sudden sharp continued pain and tenderness and muscular rigidity; perhaps with chill, reduced temperature, increased pulse-rate and vomiting, symptoms of shock. We have a chain of evidence pointing to perforation as closely linked as we commonly have to rely upon in most acute peritoneal infections. A large majority of the cases I have seen have presented a clinical history as clear as is indicated by the above grouping of symptoms.

On the other hand, it is easy to see how such symptoms may be masked if the patient is delirious, if there is abdominal distention and gastro-enteric disorder and if there has been daily marked variations in pulse and temperature. Fortunately in my experience a larger number of typhoid cases are atypical in type and the gross symptoms which would mask the symptoms of perforation are probably in the minority. It should be borne in mind that other conditions than perforation may, during the existence of typhoid fever, give rise to symptoms of local and general peritonitis. Incomplete perforation may, and I think often does give rise to local peritonitis and adhesions. In one of my cases, an abscess formed with later rupture and flooding the peritoneal cavity with pus and intestinal debris. The lower portion of the ileum entered into the formation of the abscess well and in this portion of the ileum was a large perforation. I do not believe that adhesions occur after perforation of the small bowel, but I do think it not infrequent in the preperforative stage and it possibly saves many lives. It is also essential to take into consideration the occurrence of acute cholecystitis, appendicitis, infection suppuration and discharge of mesenteric and other intraperitoneal glands and also thrombosis of intraperitoneal blood vessels. While these are probabilities and relatively infrequent perforative cholecystitis, and thrombosed mesenteric vessels may give rise to acute symptoms of local and general peritonitis.

I have seen a number of cases of acute

cholecystitis occurring during the course of typhoid fever. In several instances, I have mistaken typhoid fever in its incipiency for appendicitis and I have seen the two conditions co-exist. I have not, however, seen perforative peritonitis during typhoid fever due to any cause except typhoid perforation. Usually the differentiation has only to be made between typhoid fever and the conditions mentioned. In exceptional instances, an unrecognized ambulatory case of typhoid fever may have perforation and the only symptoms presented will be those of perforative peritonitis,

The symptoms of intestinal hemorrhage may at first stimulate to some extent those of perforation, and this is notably so when the two conditions co-exist. A case recently seen with Drs. E. J. Moseley, Jr., and Wm. S. Gordon presented slight symptoms of abdominal pain, profound collapse, reduced temperature, increased pulse, anxious expression, pinched features, and this was followed in six or eight hours by reaction. I was at first equally misled, but there was in this case an absence of the acute lasting pain, tenderness and muscular rigidity, and later on progressive improvement and large bloody stools cleared the obscurity in the diagnosis. No feature in the diagnosis is more important than the sudden transition of a case from the quiescent condition to one evincing evidences of acute intra-peritoneal invasion and no symptoms of the last condition are more uniform than acute, lasting pain and tenderness with muscular rigidity. With these we may or may not have the usual symptoms of shock. The limit of this paper will not permit me to analyze in detail the relative value of pain, tenderness, rigidity, vomiting, hiccough, reduced temperature, increased pulse rate, distention, liver and flank resonance, inhibited peristalsis, the value of blood count, blood pressure, the injection of fluids and air into the suspected peritoneal cavity, etc. Usually writers have confused preperforative symptoms, symptoms coming on immediately after a perforation and the later symptoms, those expressive of acute wide-spread peritonitis. I agree with those who classify the symptoms into three groups: (1) the preperforative, (2) the early or immediate symptoms of perforation, (3) the late—those of septic peritonitis. These last are really not symptoms of perforation, they are its inevitable sequence virulent wide-spread peritonitis.

In the diagnosis of perforation, we must not in the incipiency expect an unbroken chain of evidence. Missing links are found in the symptomatology of acute gastric bile tract and appendiceal infection. If there is pain and muscular rigidity in the right iliac fossa, a majority of surgeons will operate, confidently expecting to find an appendicitis. Clinicians who have had the largest experience in dealing with typhoid perforations impress the danger of delay. Dr. Osler writes: "As typhoid patients bear operation well, it is better to err in favor of surgery than to let valuable time be lost in waiting for further confirmatory evidence," and again, "In doubtful cases, give the patient the benefit of the doubt and operate." Dr. Cushing: "When reasonably in doubt, explore." Richardson: "Operation should be done when perforation is suspected rather than demonstrated." Greig Smith: "At the worst, happen what may, the patient can be in no more deplorable condition than before operative interference was carried out and I would plead for an attempt to reduce a mortality of 100 per cent. Early operation lessens the amount of surgery called for, is conservative and life-saving.

The technique of the early operation is very simple and implies a median or right lateral incision. I prefer the latter as it gives easier access, suturing the perforation and cleansing the soiled area, and I agree with those who claim that that 50 to 60% of cases thus treated should recover. The best technique in eleventh-hour cases is an unsolved problem. How best to treat widespread intra-peritoneal infection from any cause is an open question. In this, as in other acute intra-peritoneal infections, the key to success depends upon getting into the abdomen early and out of it just as quickly as is consistent with complete work. It is sometimes as hard to know when to get out of the abdomen at the right time as it is when to get in. Complete work implies that which will save the greatest number. A conception of what should be regarded as complete work varies very widely. Good men are not willing in general infection to stop short of evisceration and using gallons of water in flushing, others are content to wipe out the infected cavity. Still others contend that if we trust more to the recuperative powers of the peritoneum after removing the focus of infection we will get better results. Still others, notably Dr. J. B. Murphy, thinks prolonged irrigation and wiping and prolonged anaesthesia shock to such an extent that the patients do not rally. He recently reported 16 bad cases (one a typhoid perforation) in which he simply removed the focus of infection, instituted pelvic drainage and trusted to the peritoneum to do the rest. Fifteen of these cases recovered. Fowler saved 62 per cent. Escher thinks suturing of perforation produces immediate stenosis of bowel, and as we have stated, he contents himself with simply finding the

perforation and suturing the torn segment of bowel into the abdominal incision. His report of 14 operations and seven recoveries is the most encouraging I have seen. Greig Smith uttered a truism very pertinent in connection with Escher's method of treating typhoid perforations: "Better a live patient with a faecal fistula than a dead patient with an air and fluid-tight anastamosis." I live in the hope that some of the pathfinders in surgery will soon blaze a way out of this horrible wilderness, which the uninitiated may successfully follow in the treatment of wide-spread intra-peritoneal infection. In the treatment of the eleventh-hour cases of general peritonitis from typhoid perforation, I have eviscerated and irrigated and I have irrigated without viscerating. I have used multiple gauze and tubular wick drainage, anterior, posterior and lateral after wiping. I have followed as best I could Fowler's technique. In one recent case, operated upon thirty-six hours after perforation under local anaesthesia, upon a practically moribund patient, I followed Eschner's technique; and in my last case, operated upon twenty-four hours after perforation, I only sutured the perforation, put a large tube into the recto-vesical pouch and the patient in Fowler's position. With few exceptions, my patients have all died. I can see nothing but the deepest gloom when I view wide.spread intra-peritoneal infection from typhoid perforation, and this in contrast with the brilliant results from the early operation.

I shall continue to deny no one, however seemingly moribund, the only hope offered. I plead for an early diagnosis and operation whenever and wherever a case of typhoid perforation occurs, Eschner saved 50 per cent. Is his technique within the scope of the general practitioner? Two of my recent graduates have operated successfully in the backwoods of West Virginia. I advocate the closest co-operative work in this as in many conditions between surgeon and physician. If, however, the victim of typhoid perforation cannot be gotten to the surgeon or the surgeon to the victim, I claim that the general practitioner has no more right to shirk the responsibility of operating, and thereby abandon his patient to inevitable death, than he has in a case of strangulated external hernia. There is a possibility of a saved life by a faecal fistula in the case of strangulated hernia—as far as we know, it is death or operation in typhoid perforation. Dr. Victor Vaughan, in a recent address, says typhoid fever "is essentially a disease of the rural districts." Thousands of cases can only secure the services of the country practitioner. Don't stop to think of asepsis, it can always be secured, but even if it could not, the general practitioner's hands cannot possibly be as foul as the peritoneal cavity with faecal matter pouring into it. Their condition cannot be made worse. Look for them and they will be found. Operate by Eschner's technique and some will be saved. A case abandoned at any stage is a reproach.

Modification of Cow's Milk for Feeding in Early Infancy. *

By McGuire Newton, M. D., Richmond, Va., Lecturer on the Diseases of Children, University College of Medicine; Visiting Physician to the Virginia Hospital, Richmond, Va.

In the preparation of food for an infant who has been deprived of its mother's breast, we should take woman's milk as our standard and endeavor to imitate it as closely as possible. To do so, the food should contain the same constituents in about the same proportions as exist in woman's milk. and they should resemble those of woman's milk in chemical composition and in their behavior to the digestive fluids. For the basis of this food we must, of necessity, use the milk of some animal, and as cow's milk is the most abundant and easily obtained, it is now used to the exclusion, almost, of all others. Therefore, it is important that we bear in mind the following differences between it and woman's milk.

In woman's milk there is nearly twice as much sugar as there is in cow's milk, the proportion being four per cent. in that of the cow and seven per cent. in the human secretion. In mineral salts and proteids, cow's milk is about three times as rich as woman's milk, one containing seven-tenths per cent. of mineral salts and four per cent. of proteids while there is only two-tenths per cent. of mineral salts and one and five-tenths per cent. of proteids in the other. Unlike the other ingredients, the proteids differ in character as well as in quantity, and this difference is frequently the cause of trouble when cow's milk is used in substitute feeding. The proteids of both consist of caseinogen and lactalbumin, or whey proteid. Caseinogen predominates in cow's milk, where it forms about four-fifths of the proteids, while in woman's milk lactalbumin predominates and forms about two-thirds of the proteids. As caseinogen is the constituent which coagulates in the presence of rennin, this difference in the proteid accounts for the marked difference in the curd with consequent difference in the digestibllity of the two milks. There is also a difference in the reaction, it being alkaline in woman's milk and amphoteric or faintly acid in cow's milk. With the fats the dif-

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ference is so slight that it is hardly appreciable, and, consequently, it is usually stated that fat is present in both milks in about the same proportion, which is four per cent.

Overcoming these differences, so that cow's milk will more nearly resemble woman's milk, is known as the modification of milk, and consists in decreasing the proportion of proteids and mineral salts, and at the same time increasing the proportion of sugar, without disturbing the proportion of fat. Formerly, the milk was simply diluted with one, two or three parts of water according to the age of the infant. This answered the purpose so far as it reduced the proportion of fat and also the proportion of sugar which was too low originally. Thus, the infant was deprived of a large part of two of the most important constituents of its food to which it was entitled, and on which the proper growth and development of the body, in a large measure depended. This was followed by the use, as diluents, of solutions of milk sugar or cane sugar in varying strengths, which was a step in the right direction as it supplied the deficiency of sugar, but the fats were still deficient. In recent years this deficiency in fat has been overcome by the addition of cream containing known proportions of fat, or by the use of the upper portion of milk which has been standing for some time and which consequently contains an excess of fat and will, therefore, stand dilution.

To those who live in the large cities, the modification of milk is an easy task, for with them all that is necessary is to write an order for a mixture containing the desired proportions of fat, proteids, sugar, etc., which can be filled at one of the milk laboratories as rapidly and as accurately as can the pharamacist fill a prescription calling for a combination of any of the drugs or chemicals on his shelves. But for those of us who have not the advantage of a milk laboratory, and who, consequently, have to resort to the home modification, there are many difficulties, and these are often sufficient to prevent an intelligent attempt to prepare a proper food mixture. To him with the requisite knowledge and skill, it should be an easy task to bring together improper quantities, milk and cream of known chemical composition, and sugar solutions of certain strength to make a given amount of a mixture containing the constituents of the food in any proportions desired. But as most of us do not possess this skill, we have to resort to use of short cuts or set formulæ, of which there are any number. Of these an arrangement of formulæ based on analyses made by Winter, of Cornell, is the simplest, and will be of much service in overcoming the difficulties of the modification of milk if the tables are constantly referred to and the formulæ there suggested closely followed.

In the first table will be found the proper proportions in which the constituents should occur at the various ages. In the second table, we find the quantities of "top milk," sugar, lime water and sterile water which are necessary to prepare mixtures approximating these formulæ; and in the third, we have the number of daily feedings and the quantity of each, that are desirable for the various ages:

INFANT'S AGE.	Percentage of Fat	Percentage of Sugar	Percentage of Proteids	Quantity of "top-milk" from a vessel containing a quart (in ounces)	Milk Sugar (in teaspoonsful)	Lime Water (in ounces)	Boiled Water (in ounces)	Number of Feedings	Amount of each Feeding (in ounces)
1–3 day	2	7	0.25	1	3½	1½	9	10	1–1
4–7 day	2.5	7	0.33	1½	4	2	10½	10	1–1½
2nd week	3.	7	0.50	2½	4	2	10	10	1½–2
3rd week	3.5	7	0.75	6	4	4	18	10	2–2½
2nd month	4.	7	1.	9	7½	4	19	9	2½–3
3rd month	4.	7	1.25	11	7½	4	17	8	3–4
4th month	4.	7	1.50	13	7½	4	15	7½	4½–5
5–6 month	4.	7	1.75	15	6½	4	13	6	5½–6½
7–9 month	4.	6.5	2.	17	5½	4	11	6	6½–7½
10–11 month	4.	6.	2.50	21	4½	4	7	5	8–9
12 month	4.	5.5	3.	25	3	4	3	5	9–10

To prepare food mixtures according to this table, it is necessary to have a quart of milk which has stood long enough for the cream to rise, and from which the desired quantity is to be taken by means of a dipper made for the purpose; or, better still, we may draw off, by means of a syphon, the lower portion of the milk until only the desired quantity remains in the vessel.

The advantages to be derived from the use of a formulary similar to this are many; and among them attention may be called to the simplicity and accuracy, as when the table is closely followed, mistakes are much

less liable to occur than when we expect persons totally unused to such work, to make use of mathematical equations. Then again, the increase in the proportions of the constituents of the food is so gradual that the danger of its causing digestive disturbances is reduced to a minimum. Another advantage, which is of no mean importance, is that the mixtures present the natural emulsion of milk which in these modifications, very nearly resembles that of woman's milk; while, on the contrary, those made by mixing creams of various strengths and milk do not present this emulsion as milk and cream do not mix; therefore, the component parts of such mixtures very frequently separate, with the result that the infant is called on to digest whole milk, thus rendering it liable to digestive disturbances incident to feeding with whole milk. When using top milk, or gravity cream, the best results are to be obtained from the use of milk which is bottled soon after milking, or before any of the cream rises, and is not disturbed any more until time to prepare the food mixture. Where it is impossible to secure bottled milk, the first step in the preparation of the food should be to warm the milk to a temperature of 95 to 100 deg. F., and then set it aside in a cool place for the cream to rise. The importance of this is due to the fact that in using milk from a delivery can we have to depend on what is known as the second rise of cream, and this is nothing like so abundant as the first unless the milk is gently warmed or, as the dairymen express it, the animal heat restored. But after the application of gentle heat, the second rise of cream will be almost, if not quite, as abundant as the first.

In varying the strength of these mixtures, we must consider the weight and strength as well as age, of the infant, as large, strong infants are often able to and do, take mixtures recommended for those much older; while, on the other hand, small infants with feeble digestion have to be fed on mixtures which are recommended for those younger. And as it is easier to increase the strength of a milk mixture than to correct the pathological changes which may result from the use of a mixture which is too strong, it is well to begin the use of modified milk with a formula recommended for an infant younger than the one to be fed.

There are certain indications which demand a special modification of the milk Among them, may be mentioned a slow gain in weight with no digestive disturbance, which indicates that all of the ingredients of the food are deficient and particularly the sugar. Thin, green, acid stools with or without colic, indicate an excess of sugar. Constipation with dry, hard stools is indicative of a deficiency in fat, while an excess of fat will be the cause of vomiting or regurgitation of small quantities of the food, one or two hours after feeding, or of frequent movements from the bowels which are normal, or nearly so, in appearance. The presence of curds in the stools, with or without colic, points to an excess of proteids. Occasionally where this condition exists, there is diarrhea, but more often there is constipation. These indications are to be met by the use of formulæ in which the disturbing factors are altered in response to the demands of the case.

For those infants whose digestion is poor, as is the case after prolonged errors in diet or in convalescence from diseases of the digestive tract, the preparation of the food requires especial attention. With these cases, using a formula recommended for an infant several months younger, or simply diluting the mixture with water may be all that is needed; but it is often necessary to further modify the proteids which may be accomplished by partially or completely peptonizing the mixture by means of pancreatic extract, or we may use whey as a substitute for the mixture. The process of making whey is a simple one, and consists in adding a teaspoonful of essence of pepsin to a pint of milk which is then subjected to a temperature of 100 to 110 deg. F., for about ten minutes, or until coagulation takes place. The coagulum is then broken up and strained through fine muslin or cheese cloth thus removing the caseinogen and a portion of fat. The resulting liquid, or whey, is rapidly cooled and kept on ice until time for feeding when it is gently warmed as with any other food. Its value as a food is due to the reduction of proteids which are here represented by lactalbumin, the caseinogen having been removed. To the whey, sugar of milk should be added in the proportion of a tablespoonful to a pint; and as the condition of the infant improves, we should add small quantities of cream and egg albumin to each feeding to make up for the deficient fats and proteids. If this improvement continues, we may gradually return to the milk mixtures. In the majority of cases, the use of whey will give good results; and it is worthy of a trial whenever the digestion of the milk mixture is attended with difficulty.

Whey does not occupy the place in infant feeding which it deserves owing, I believe, to the fact that in the analysis of whey which is quoted by most authorities, the proportion of fat is given as thirty-two one-hundreths of one per cent. which is far too low, and which must be the analysis of whey made from milk from which the cream has been removed, as the whey made from

whole milk, such as sold in this city, contains from one to two per cent. of fat.

There is a growing sentiment among the authorities, in opposition to the sterilization or pasteurization of milk owing to certain well defined changes which take place in milk when it is subjected to a temperature above 150 deg. F., and which, as it is said, devitalize the food. Among these changes may be mentioned the separation of the loose chemical union between the mineral salts and proteids, with the result that the calcium salts which are normally soluble and are of such importance in growth and development, are precipitated or enter into insoluble combinations. And also, the lactalbumin is coagulated and consequently rendered unfit for digestion; and at the same time, changes take place in the caseinogen which interfere with its coagulability in the presence of rennin, and thereby impair its digestibility. In addition to these, the fat emulsion is injured or destroyed; and there are other changes which are not well defined. Bearing in mind this effect of heat, we cannot wonder why it is that infants fed on this devitalized food develop scurvy, rickets, anemia and the long chain of disorders which follow these conditions. Therefore, we should endeavor to obtain pure, clean milk, and only resort to sterilization when we have reason to suspect that the milk is infected or that the laws of hygiene were disregarded at the dairy; but in so doing we must not lose sight of the fact that milk containing pathogenic bacteria is not rendered pure by boiling, as heat will not destroy the toxines which have been formed. If it is necessary to keep the milk for any length of time, as when ocean voyages or other long trips are taken, it should, of course, be sterilized, and when this is properly done, the ordinary fermentation changes will be delayed for several days.

Should substances other than those found in milk be added to the milk mixture? Certainly not so long as we are striving to imitate woman's milk. And particularly should we avoid the addition of starch and starchy substances to the food mixtures of infants prior to the eighth month of life, for it is not till about this period that the amylolytic function of the pancreatic secretion is sufficiently developed to digest starches; and surely, it is not the part of wisdom to feed to one whose digestion is poorly developed and to whom the healthy condition of the digestion means so much, a substance with which the digestive organs cannot cope, and which will, therefore, act as an irritant to the alimentary tract.

Nothing has been said about the importance of cleanliness in handling the milk and in the preparation of food for infants, for it should be as necessary to urge the importance of cleanliness here as to urge the importance of cleanliness in the preparation for an abdominal section, for the one is as important as the other.

A Few Remarks on the Proper Value of the X-ray in Therapeutics. *

By Ennion G. Williams, M. D., Richmond, Va.

The purpose of this paper is to correct certain erroneous ideas which are too prevalent in the minds of members of our profession regarding this new addition to our diagnostic and therapeutic armamentarium; and to tell briefly the value and limitations of the X-ray in therapeutics, as known to us at present.

Unfortunately, the profession at large has been misled by reports emanating either from those whom a miraculous and, perhaps accidental, success has rendered over-enthusiastic, or by those whose failures on account of ignorance or poor technic have rendered pessimistic. Thus, we have those who would believe that we have in the ray an agent that may be almost a panacea, and we have those who would relegate to the shelf the X-ray along with other discarded apparatus and out-of-date materia medica. Both of these ideas are at fault. Until the mysterious spirit or energy that constitutes the breath of life is discovered, there can be no panacea. On the other hand no one with any experience with the X-ray will deny that the ray has a pronounced influence on living organic matter, and that grave pathological conditions have healed under its influence. Furthermore, the healing could not be attributed to the mental or psychological effect which is undoubtedly the active principle of many therapeutic agents, particularly in the electrical line.

The fact that the ray has an influence upon living matter and that many remarkable cures have been accomplished should make the profession slow in condemning it on account of the failures. The fault has been in the idea that the ray was a miracle worker; that it was only necessary to expose a cancer to the magic light of a tube and it would heal. The X-ray is only a therapeutic agent with a decidedly destructive influence upon cells of low vitality and also a bactericidal effect. Its use is not empirical; its effect upon the cells is more accurately known than is the physiological action of most drugs in common use, and it is more certain in its action. The X-ray light varies very greatly in its quality and intensity. There is no wonder that the reports of the results of its use should vary

* Read by Title before the Medical Society of Virginia in Richmond, October 21, 1904.

when these points are not duly appreciated.

Because of the comparatively limited experience of each operator and the lack of system in reporting cases and particularly the differences in X-ray apparatus, the progress in determining the best technic is slow. With the improvement of the technic, by which is meant the combination of the variable factors, consisting of the voltage and amperage of the current, the penetration and resistance of the tube, the duration and frequency of the exposure, and the distance of the tube from the patient in such a manner as best to affect the particular pathologic condition, the therapeutic results will be more uniform and the field of usefulness of the ray steadily extended. As with other therapeutic agents, to obtain good results the light must be applied in the proper strength, dosage and frequency. Quinine and mercury, the best specifics we have, are only successful when attention is given to these considerations. To use a stronger analogy: the knife is an excellent therapeutic agent for appendicitis, but the result of its use depends upon the skill of its applicatiou.

As a general rule, the more superficial the growth the surer and more prompt is the healing, and the deeper the growth the more doubtful becomes the prognosis. The reason of this is that the influence of the ray lessens as it penetrates and is absorbed in the tissues, and the intensity decreases as the square of the distance. Before a deep growth could be affected, the surface and intervening tissues would be seriously impaired. Lesions on the mucous membrane also have a doubtful prognosis. However, on account of the fact that some remarkable cures have been obtained in these deep growths, and those on mucous membranes it is hoped and expected that an improved technic will give a larger percentage of successful results.

All epitheliomas, superficial carcinomas and sarcomas are very amenable to the X-ray and should therefore be treated with the ray in preference to using caustics or the knife. There is less scar, the treatment is painless and there is less tendency to a recurrence.

Deep malignant growths or those on mucous membranes, because of the doubtful prognosis with the X-ray, should be removed by surgical procedures when possible and then given X-ray treatment to prevent a recurrence. Inoperable cases should, by all means, be exposed to the ray unless the vitality be so low and the growth so extensive that repair could not take place even if the growth be destroyed. The pain might be relieved and the odor and discharge diminished. Some remarkable results have been obtained in these inoperable cases. As a rule, a doubtful prognosis should be given in these cases. With recurrence and deep growths there is always a probability of metastasis. In regard to the X-ray treatment of various forms of tuberculosis, Dr. J. B. Bullitt, in his presidential address before the last meeting of the American Roentgen Ray Society, stated, after reviewing a large number of cases, that: "The Roentgen ray is not to be regarded as a perfect method of treatment in tuberculosis disease, but may be considered to be of great value." "The reports indicate that in some cases, at least, the tuberculosis process can be cut short by exposure to the X-ray, that a cure can be affected in much shorter time, and, in diseases of the bones and joints, with much better functional results than is to be expected from the usual surgical methods."

It is doubtful whether pulmonary tuberculosis is benefited by the ray. Reports are conflicting; but they have been mostly negative. If the X-ray is applied, other forms of treatment, such as fresh air and feeding, should not be neglected.

In a great many forms of skin diseases the X-ray is a valuable therapeutic agent because of its bactericidal influence and also its degenerative effect upon cells of low vitality. It is inadvisable to apply the ray to trivial affections which are readily relieved by simpler remedies. Its great value is in those conditions where other forms of treatment have failed. Among the diseases, especially benefitted by the ray, are lupus vulgaris and erythematosus, acne vulgaris, acne rosacea, keratosis, naevus, chronic eczema.

In the chronic and indurated forms of acne vulgaris it produces excellent results. These are probably due to the atrophic influence upon the glands.

Acne rosacea is often markedly improved. Occasionally the dilated vessels remain which may have to be removed with an electrolytic needle.

Chronic eczema which have resisted other forms of treatment should be subjected to the ray. Very beneficial results may be obtained.

Old and intractable patches of psoriasis usually heal rapidly under the influence of the ray, but in a few months they are likely to recur. Since psoriasis is but the local manifestion, of a constitutional dyscrasia, it is not likely that the X-ray can be of permanent value.

Local Treatment in Gynæcology.

Ford urges that gynæcologists should not confine themselves to operative treatment. If all gynæcological cases received judicious and early local treatment there would be less need for so many spectacular operations.

A Report of the Surgical Use of the X-Ray. *

By A. L. Gray, M. D., Member American Roentgen Ray Society, and in Charge of X-Ray Department Virginia Hospital, Richmond, Virginia.

Mr. President and Gentlemen of the Society:

In this brief paper, I shall attempt to demonstrate by the practical application of the X-rays to a special case and by a report of the results obtained, the inestimable value of this agent in some conditions in which the surgeon, in its absence, would be in utter darkness.

At the same time this case will serve to impress the importance of the greatest care on the part of the X-ray operator not to be in too great haste in arriving at a conclusion, but to be certain beyond mistake before making known his diagnosis.

On June 12th of this year, an infant, white, male, aged seven months, was brought to me with the statement that while his mother was dressing him three weeks before, he removed an open safety pin which had been temporarily stuck into his clothing, put it into his mouth and his mother, in attempting to remove it, pushed it beyond her reach and the pin disappeared down the child's throat.

After the usual treatment in such cases had been employed with the hope of a safe passage for the pin, without accomplishing the desired results, and because of an apparent inability of the child to lie on his back, any attempt at which would cause him to cry out as if in great pain, and also because of an entero-colitis that was beginning, the physician in charge advised an X-ray examination. Being told that an anaesthetic would be probably necessary to make a satisfactory radiograph, the parents raised serious objections and I determined to first try the fluoroscope.

After running rather hurriedly over the chest I began a more careful search of the child's abdomen where the pin was supposed to be situated and soon located an opaque object below the liver which was thought to be the clasp end of the pin in the hepatic flexure of the colon.

Thinking the pin had progressed thus far on its journey, all idea of a surgical operation was temporarily abandoned and renewed efforts to cause its expulsion were resorted to.

On the 10th of July following, when the child seemed to be steadily growing worse, he was brought to me again for a second examination and a radiograph if necessary. Again the fluroscope was employed, but this time the spot formerly observed was no longer to be seen but somewhat similar object was located in the hypo-gastric region. (The spot is shown in the picture in front of the sacrum).

Not being fully satisfied, the child was anaesthetised and a radiograph made. The pin was plainly and unmistakably shown, not however at either of the places at which it had been formerly located but in the oesophagus! (The pin is clearly seen in the picture behind the upper border of the heart—point upward and to the left, and open as wide as the diameter of the oesophagus will allow). The pressure of the spring of the pin against the walls of the oesophagus had prevented its passage downward.

After numerous consultations with the surgeon and the throat specialist as to the best means of removal, the operation decided on was that of gastrotomy which was performed on July 17th at the Virginia Hospital by Dr. Stuart McGuire, assisted by Dr. Joseph A. White.

The stomach being opened. a probe was passed through the mouth and the pin pushed downward until it could be grasped with long forceps and removed.

The patient made a rapid and uneventful recovery and is now well and hearty.

After the radiograph had been made and the correct location of the pin found, it was ascertained that the child had been given large doses of the sub-nitrate of bismuth for his bowel trouble, and this was no doubt responsible for the errors in the fluoroscopic examinations.

The appearance of the pin and debris brought out with it gave marked evidences of beginning ulceration which in a short time would of necessity have perforated the oesophageal wall and with what dire results the imagination may well picture.

I believe that just such haste as I was about to be guilty of, is responsible for the reports of surgical operations for the removal of false teeth and other foreign bodies thought to have been swallowed but which have proved too late to be "under the mattress" or in some other equally harmless locality.

I trust that the report of this case will serve to impress the immeasurable worth of this agent when properly employed and at the same time to suggest the possible embarrassment that may follow too great enthusiasm.

Protest Against Tuberculosis Sanitarium at Binghamton, N. Y.

A protest, signed by seventy-two citizens of Binghamton, has been presented to the common council and board of health protesting against the establishment of a sanitarium and camp for consumptives on Mount Prospect, near that city.

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MEDICAL COLLEGE REQUIREMENTS IN KENTUCKY.

The Board of Health of Kentucky has recently passed some very unusual rules that will be of interest to students of medicine, who contemplate taking up the practice of medicine in that State. It may interfere with some of their plans and the workings of some of their medical colleges. After July 1st, 1905, the medical colleges in that State will have to comply with the following as a condition of being recognized as reputable by the State Board of Health:

(1) It shall uniformly exact the requirements for matriculation set forth in "Requirements for Admission to Medical Colleges," adopted by this Board on this date. (2) It shall literally observe its own published requirements for the admission, tuition, time of attendance at the annual sessions, and graduation, which must be definitely expressed. (3) It shall have adequate equipment and an active and competent faculty for teaching the science and art of medicine, embracing the following departments, viz: anatomy, chemistry, pathology, histology, bacteriology, obstetrics, gynecology, ophthalmolgy, otology, hygiene and State medicine, medical jurisprudence, physical diagnosis and therapeutics and practice, in accordance with the system to which the college belongs. (4) It shall have clinical and hospital facilities based upon a minimum municipal population at its place of location of not less than *fifty thousand*; provided, that this requirement shall not apply to institutions under State control, which by virtue of such control receive patients gratuitously from all parts of such State. (5) It shall require actual attendance upon eighty per cent. of each of four courses of instruction of not less than thirty continuous weeks, including holidays, in four separate years, and shall not hold more than one graduating course in any one year. (6) It shall not accept *notes in payment of fees*, or offer or accept scholarships, or any reduction in fees, or any form of rebates, except as provided for or required under State laws or under the laws of endowed universities, and no student shall be given credit for attendance or be advanced or graduated, until all fees have been paid. (7) Colleges may honor official credentials issned by medical colleges of equal requirements, as to students who have complied with the "Requirements for Admission to Medical Colleges," except in the branches of study embraced in the last year of their own curriculum.

If these rules were adopted by our examining board in the State of North Carolina it would exclude all of our colleges. The phraseology of our law as it now stands gives the Board of Examiners the right to decide which schools are reputable and which schools have sufficient clinical facilities. The Board's policy has always been liberal, and if a young man is competent to pass the various examinations he is passed and made a legal practitioner regardless of where he received his diploma. Of course, it is necessary that the college from which he graduates is reputable. Some times colleges can be very small with very few clinical facilities, very little apparatus, possibly little reputation, and in a small town and can turn out well informed men who can pass a very creditable examination before any examining board in any State.

This is as it should be. The South will never build up in medicine and in surgery and the members of the medical profession can never speak with a feeling of authority until they conduct their own teaching institutions, do their own surgery and have their own hospitals.

PNEUMONIA.

It is well enough occasionally even if we have no new ideas to bring out, to say a word concerning pneumonia, in as much as it is by far the most widespread and fatal of all acute diseases.

In a great many diseases especially tuberculosis, the death-rate has steadily decreased, while that of pneumonia has steadily increased, until now the mortality approaches, possibly exceeds that of tuberculosis. It is strange, yet it is true, with all the advances in the prevention and treatment of infectious diseases pneumonia is to-day more prevalent and more fatal than it has ever been within the last one hundred years. In Chicago, New York, Boston, Philadelphia, and Baltimore, the reports from the various hospitals show a decided increase in the number of patients admitted and a greater death-rate than ever known before.

Dr. Wells in commenting on 359,797 cases of pneumonia makes this statement: "The proportion of deaths from pneumonia to the total deaths from all causes and to the population has steadily and markedly increased, while the general death-rate remains unaltered, and the conclusion is irresistable that the prevalence of this malady has notably increased during the last 100 years."

The season of the year has a great influ-

ence on the development of the disease. Judging from the reports of the various hospitals, we are lead to believe that the following statistics are about correct. During the summer months the percent of cases seen by the average physician does not exceed 2%. During the fall and early winter, fully 8% of all cases treated suffer with pneumonia. During the months of February and March, the percent of cases admitted in most hospitals will reach 17 to 18%. Statistics indicate very clearly that cold weather combined with dampness is more favorable to the development of pneumonia than cold dry weather. The study of the mortality percentage from pneumonia during the last hundred years is interesting, really it is remarkable. A hundred years ago with heroic treatment when stimulants were greatly relied upon and when antipyretics were extensively used the mortality in all of the recorded cases from 1810 to 1820 was a fraction over 11%. Under the expectant and symptomatic plan of treatment it is seldom that the mortality passes 20%. In the large hospitals of Philadelphia and New York the death-rate during the last eight years has amounted to 22%. The mortality in the Johns Hopkins Hospital in Baltimore in pneumonia cases is 25% in white patients and 30% among negro patients. When we come to think of it and try to recognize the cause of this increased mortality, or a mortality that has not been improved upon by any special plan of treatment, it is well enough to point out some of the irrational ideas that often prevail in the treatment of these cases. The drugs that have evidently produced the most mischief in the treatment of pneumonia are opiates. It is very tempting for a physician in any stage of pneumonia where a patient is tossing about with a great deal of pain, a great deal of coughing and possibly delirium to give something to produce quiet and sleep. The patient calls for relief, begs for it, and we too often let our feelings influence too much our judgment. We have never given an opiate for these symptoms that we did not in a few hours recognize a worse condition than we had before. It is perfectly plain to the close observer that artificial sleep in pneumonia cases is worse than no sleep at all. I a great deal rather a patient of mine would get two hours natural sleep when suffering with this disease than ten hours produced by medicines, especially by an opiate. Whiskey is quite often prescribed by many physicians, regardless of the conditions present. They begin to give it whenever the diagnosis is made in ounce doses every two or three hours and continue it until the patient passes the crisis. I never could see anything intelligent about this method, and never could see any benefit from it in actual practice. It tends invariably to derange a person's stomach, to make them more wakeful, more restless and more delirious and excitable. It might eliminate in certain cases fear, but pneumonia patients do not have that apprehension that typhoid cases have. Whiskey might be at certain times beneficial, but I cannot now recall any case where I thought that it was indicated prior to the crisis. Then possibly in the majority of cases a few hot drinks of whiskey, if the temperature is sub-normal, are very beneficial. Some physicians give strychnine and digitalis and whiskey combined from the beginning to the end of their pneumonia cases. Of course a plan like this cannot appeal to the thoughtful and to those who have watched many cases of pneumonia. I might in a very small percent of cases occasionally give digitalis, but it is not a medicine that I think has much value in this disease. If we would pay more attention to the general management of cases and less to the medical treatment we would do better.

We often make a mistake in overfeeding these cases. This class of sick people are capable of assimilating a very small amount of nourishment. A large per cent of them would very likely get along better if they were not fed but very little. The plan of giving a pneumonia case anything like a teacupful of broth, or a glass of milk every two hours from the beginning to the end of the attack is capable of doing a great deal of harm. It would be much better to give them a little hot lemonade occasionally. A light, cheerful, well ventilated room with the proper temperature adds a great deal to the comfort of this class of patients. All the excretions should be kept as near normal as possible. If we observe these general conservative rules, we will do a great deal better than to adopt more radical measures.

THE HEART IN TYPHOID.

The profound typhoid disorders of the heart are dependant on parenchymatous degeneration of the myocardium as well as upon a true myocarditis. The different forms of parenchyamatous degeneration are due to the interstitial inflammatory process and also to the obliterating endarteritis of the smallest arterial branches of the myocardium.

The above conditions may be well developed about the third week of the disease with the accompanying dilitation which produces an insufficiency of the valves, hence giving the characteristic murmurs, provided there has been some over-exertion on part of the patient. Although in typhoid as in

rheumatism many have a sclerosis of the valves, due probably to the infection, it is more commonly due to dilitation depending on the myocarditis. Typhoid patients with the myocarditis which corresponds with the degeneration of the voluntary muscles of the body if allowed to exert themselves too violently, often causes collapse and death from acute dilitation. This is generally considered as a fact, and in acute rheumatism the patient is generally warned against over-exertion for some time after the acute stage is over, especially if there is any suspicion of involvement of the valves of the heart.

In the convalescence of typhoid the patient should also be equally warned because this constant over-exertion will eventually produce a permanent dilitation and, therefore, as complete incompetency of the valves as the sclerosis of the valves which is seen so commonly as the result of acute articular rheumatism.

THE TRI-STATE MEDICAL ASSOCIATION OF THE CAROLINAS AND VIRGINIA.

This Association meets in Greensboro, N. C., February 22nd and 23rd. We understand through the President, Dr. W. L. Robinson, of Danville, Va., that the indications are that this approaching meeting will be the largest of any in the history of the Society. Many papers of real value by well known specialists will be read. The program is now about ready for publication and those who expect to read papers should notify at once Dr. Rolfe E. Hughes, Secretary, Laurens, S. C.

Greensboro is an ideal place for a meeting of this kind. The local profession there with the aid of its progressive citizens will make every effort to make the meeting pleasant as well as profitable for the visiting physicians.

Dr. Hare of Philadelphia, one of the most eminent therapeutist in this country, is not in favor of beef tea in typhoid fever. He gives for his reason that it is a first rate culture medium and is a potent cause of diarrhea and fetid stools. He has for a long time advocated a varied diet of liquids and semi-solids.

After the first week of the disease he suggests one or two soft boiled eggs a day in addition to liquid diet. Well cooked rice, barley and oat meal gruel are often given by Dr. Hare. He says that patients fed in this way have a better convalescence than cases that have not been so well fed.

Dr. Hare is a gentleman who has the respect and confidence of almost the entire medical profession of this country. His teachings along this line, however, are capable of doing a great deal of harm.

I suppose that Dr. Loomis' suggestion that all typhoid fever cases take a tumblerful of sweet milk every two hours from the beginning to the end of the attack, killed thousands of cases all over this country. So will these suggestions of Dr. Hare's, if the medical profession believes what he has said.

Dr. Frank Duffy, of Newberne, N. C., in a very fine essay prepared on the feeding of typhoid fever, and which was presented to the medical society of North Carolina about fifteen years ago, was the first to attack Dr. Loomis' plan of feeding typhoid fever cases, and to-day the suggestions that Dr. Duffy brought out in his paper are about as sensible and as practical as we will find in any text book that has been written in the last year.

It seems to the writer that anyone who has had any experience at all in the treatment of typhoid fever and has watched his cases carefully has observed the bad effect that always follows the giving of a semi-solid food, especially soft boiled eggs, until the temperature has been normal at least six or eight days.

James A. Burroughs, M. D., Asheville, N. C., gave his clinical experience in the treatment of tubercular pleuritis and other serious cavities, with report of cases, before the recent meeting of the Mississippi Valley Medical Association. He brings forward a new idea in the treatment of hemoptysis and also tubercular pleuritis. He gives an inter-pleural injection of salt solution, usually about three pints. The first case reported was one of hemorrhage which resisted all other modes of treatment. The immediate result was most encouraging, hemorrhage ceasing almost immediately. This proved successful a number of times afterward in the same case. The author noticed that after the first injection the tubercular pleurisy was much improved, soon after patient developed tubercular pleurisy of the opposite side, the same mode of treatment was carried out, and now two years having elapsed, patient has had no recurrence of pleurisy.

He also gives a series of cases of tubercular pleuritis in which this method has proven successful, the only objection being in those cases where the pleura has been eroded by the tubercular process in the lung, thus forming a free opening from pleural cavity into the substance of the lung. In these cases the salt solution injected into the pleura passes into the lung, the patient develops dyspnea and coughs up some of the salt solution, otherwise patient might be drowned by this procedure. From his experience, thus far, the author ventures the

assertion that this same form of treatment might well be tried in tuberculosis of other serous membranes.

Review of Southern Medical Literature.

Virginia Medical Semi-Monthly, November 11, 1904.

The Theories of Serum Therapy.—Chas. R. Grandy, M. D., Norfolk, Va., points out that poisons or toxins are invisible chemical substances which are apparently produced by the cellular activity of the bacteria much in the same way as morphine is formed in the poppy, and in these cases readily pass into solution. The cellular changes are produced by the chemical action of the toxins, while the symptoms may be said to be "the expression of a reaction on the part of the cells to these injurious agencies." (Herter)

There are at least two toxins formed in a tetanus culture, one having an affinity for the red blood corpuscles uniting with them and dissolving them; the other uniting with the nerve cells and producing the tetanic spasms. The diphtheria bacillus culture may contain a number of toxins but not having such marked predelections has not been analyzed.

A bacterium may contain several more or less soluble toxins which may pass into solution and become attached to specific body cells, provided that the cell contain a chemical group to which the toxin can attach itself. These groups are termed side chains or receptoes by Ehrlich, who supposes that they are commonly used by the cell in the absorption of food. These side chains are mere chemical groups, and must never be considered as histological.

It has been found that, if an animal be injected with bacterial toxins for a long time, its blood serum is so changed that when mixed with toxin it will neutralize it and keep it from harming susceptible animals. Such a serum is called an antiserum or an antitoxin. It is also found to be present in the serum of animals recovering from the disease in question. Antibodies can in the same way be formed against otner chemicals besides bactericidal toxins; for example, against rennet, whose milk curdling properties it destroys.

According to Ehrlich and Victor Vaughan, each pathogenic bacterum contains a fixed toxic group, more or less firmly bound in the cell. In some cases, as in diphtheria and tetanus, this substance is readily soluble; in others it must first be split off from other cell components, as is the case with colon typhoid and anthrax bacillus. This has been done by purely chemical means (by treating them with 27 percent. caustic soda in absolute alcohol).

Vaughan has been able to separate various chemical groups from bacteria, but will only mention the two most important. The bacteria contain a nuclein group and a toxic group. The body cells contain a nuclein group a d an antitoxic group. If the chemical affinity between the toxic group of the bacteria and the antitoxic group of the body cell is greater than that between the toxic group of the bacteria and the rest of the bacterial cell it will split off and combine with the antitoxic group of the body cell. If the cell has more than enough of the antitoxic group to satisfy the toxic group of the bacteria the body cell will be able to reproduce the part of the group which has been destroyed. In so doing it produces more than it needs, and this passes into the serum, where as antitoxin it is free to combine with the toxin before it reach the cells. By beginning with small doses of toxin and gradually increasing them, the cells can be stimulated to produce more and more antitoxin, as is done in its artificial production. If, on the other hand, the toxin is so strong that it takes up all the antitoxic group in the body cell and perhaps also splits up its nuclein group, the cell is destroyed. Acting in the same way but in reverse order, a small amount of antitoxin may stimulate bacteria to produce more toxin, as is shown by bacteria becoming more virulent when grown on immune serum. Therefore, in order to hurt the body cell the bacteria must have a fixed toxin which has an affinity for one of the groups of the body cell.

The power attributed to the phagocytes of destroying bacteria is not upheld, but is said to be due to substances called cytolepsius, which are produced by the cells of the body. There are two of these substances, one always present in the serum and the other produced by the action of a foreign body on the cells. These are entirely distinct from the antitoxins. The bacteria may also contain cystoysius which will destroy its own self. Therefore, the cytoysius, whether formed from the cells or present in the bacteria cause the destruction of the bacteria and the phagocites act as the scavengers, taking up the dead bactria.

In regard to immunizing a patient we can do it by active immunization or passive immunization. By active immunization we stimulate the cells to produce the antitoxins and by passive immunization we inject the antitoxin into the body.

Curative injections of antitoxins have proved of much value in diphtheria and snake poison. In tetanus the toxin unites immediately with the nerve cells from

which it cannot be separated by the antitoxin.

Antitoxic Serum-Therapy.—J. S. Davis, M.A., M.D., Charlottesville, Va., says that the results on animals with serum is better than its use clinically on man is due to our lack of means of recognizing the true condition early enough and by the time serum-therapy is indicated clinically it may be too late to intervene or organs may have so far deteriorated as to be incapable of recuperation under any form of treatment.

Under diphtheria a full description of the different modes of obtaining the antitoxin is given, also the great diminution of the mortality from diphtheria in the larger cities since the antitoxin has come into use. The dosage and method of administration are fully explained. The antitoxin has no effect on any other form of infection which may be combined with the diphtheria injection. In cases of tetanus the outlook is not so favorable as in diphtheria, but in institutions where the tetanus antitoxin is used at once in all cases of suspicious wounds the percentage of cases of tetanus have been greatly reduced. In cases once developed numbers of cases have been reported as cured. The streptococcus antitoxin has not come up to previous expectations, for various reasons, stated in this paper.

The Bubonic Plague antitoxin made by Haffkine, according to Dr. Slaughter. 1st, Protects for three months. 2. It acts within twenty-four hours. 3. When the inoculation is made during the incubation of the disease, provided symptoms have not actually set in, it has in many cases the power to abort. 4. It has no effect on other diseases. 5. Inoculations confer a high degree of immunity and greatly reduce the number of cases. 6. When in spite of inoculation a person is attacked, the chances of recovery are greatly increased. In pneumonia the antitoxin in these cases act best when the leucocytes exists or can be promoted. Also its use is indicated in other forms of pneunococcus infection.

Infantile Convulsions.—B. W. Rawles, M. D., Richmond, Va., considers convulsions in early infancy as a symptom and not a disease. Many cases of epilepsy have their beginning in infantile convulsions. The local general predisposing and exciting causes are fully taken up and the symptoms, pathology, diagnosis, prognosis and treatment are also thoroughly explained.

Prognosis.—John M. Batten, M. D.. Downington, La., warns the profession about giving unfavorable prognosis unless forced to do so, and then only to a third person and not to the patient or nearest relative.

The Papillomata and Their Degenerations.—Wm. DeB. Macinder, M. D., Raleigh, N. C., reports several cases of papillomata which had undergone a sarcomatosis and several that have undergone carcenomatous degeneration. In sarcomatous first notice increase in size and pain microscopically find the sarcomatous cells. Carcenomatous degeneration is most common in warts and moles on the face, while sarcomatous degeneration takes place more commonly in the moles and warts on other parts of the body.

The American Practitioner and News.

Acute Gangrenous Cholecytitis With Report of Cases.—F. W. Samuel, M. D., draws attention to the mode of infection in these cases, stating that the infection is carried in the common duct to the gall bladder. The cases reported seem to illustrate this point quite satisfactorily.

Atlanta Journal-Record of Medicine, November, 1904.

The Stomach Tube—Its Origin, Use and Abuse.—L. Amster, M. D., gives a short history of the use of the stomach tube in medicine, stating that it was first used by Dr. Physick, an American physician, in 1812, and was first recommended for diagnostic purposes by Leak in 1871. The indications for its use and the abuse of this procedure is clearly stated. He warns the physician of the prevailing abuse in passing a tube in cases where it is clearly unnecessary, stating that this has driven many patients into the hands of quacks with pleasant tasting nostrums.

Georgia Commission on Tuberculosis.—Chas. Hicks, M. D., Chairman, Dublin, Ga., urges the complete organization of the physicians throughout the State and asks the legislature to appoint a committee to investigate the present condition of the State in regard to tuberculosis.

Is Tuberculosis a Disease of Envivement Only ?—H. McHatton, M. D., Macon, Ga., compares the number of cases of tuberculosis among the slaves previous to the war and the condition of the colored race now. Also the Chinamen that were brought to Cuba and placed on plantations, showing the improvement brought about by simply changing their envivement, thus proving that the change brought about after the war in the case of the colored population produced an alarming percentage of cases of tuberculosis among these people, while in the case of the Chinamen brought from the most unhygienic section of one of the large cities in China, the condition was quite the reverse.

Lumbar Puncture, A Direct Method for the Treatment of Tetanus With the Report of Nine Successful Cases so Treated.—W. Troy Berings, A.B., Ph.B., M.D., Atlanta, Ga., reports nine cases of tetanus in which the lumbar puncture was made, and anywhere from 20 to 200 mm. of cerbrospinal fluid was withdrawn and from 8 to 14 c.c. of antitoxin introduced into the subarachnoid space with very encouraging results. After the report of the cases he arrives at the following conclusions:

1. The indications in the treatment of tetanus are very strong and positive for urgent and forced nutrition and stimulation, on account of the marked exhaustion and most rapid wasting which directly or indirectly seems to aid in producing a fatal termination.

2. The shock and collapse often seen in administering medullary narcotics is not due to the removal of the spinal fluid and the injection of another fluid, but is due to the physiological action of the cocaine so injected.

3. That tetanus is not the hopeless condition that it has been pictured in the past, for the bacillus producing the disease remains localized at the original point of injury and generates a toxin, which toxin is taken up by the blood vessels, the lymph vessels and finally is carried along the nearest nerve branches, according to Stinzing, in the interstices of the perineum and endoneurium to the spinal cord, and in this way all the fluids of the body are charged with the poison; but on account of the intimate contact of the spinal fluid with the cord, and on account of its concentrated condition, drawing as it does from both the toxin gathered from the nervous system and the lymph vessels, the sooner this fluid is withdrawn from the spinal cord, thereby preventing further action on the motor cells, and we might say checking all symptoms of the disease, the better the patient's chance of recovery. This fluid has to be withdrawn as the symptoms demand, once, twice, or thrice daily, if indicated, and must also be replaced by some sterile solution, and as the true value of the antitetanic serum has never been determined. I favor its use if it can be had, giving the patient the benefit of the doubt; but in case it can not be secured, then use either the normal salt solution or two percent boracic acid solution. This supplemented by the forced feeding and proper regard for the original wound, gives promise to reduce the now terrible death-rate of 95% in this disease.

Richmond Journal of Practice.

Symptoms and Diagnosis of Cancer of the Stomach.—Dr. H. S. MacLean recommends that more care should be used in examination and diagnosis of the seemingly trivial conditions referred to the stomach by the patient. In this way an early diagnosis may be made at a time when the condition is in such a stage that it is possible to do some good therapeutically or at least surgically. When the classical symptoms of pain, anorexia, nausea or vomiting, hemorrhage, emaciation, etc., is reached, the patient is usually beyond all help. The important symptoms are: 1. Progressive emaciation. 2. Gastric dilitation and loss of mobility. 3. Presence of lactic acid. 4. Absence of hydrochloric acid and digestive ferments. 5. Presence of Boas-Oppler bacilli. 6. Presence of pieces of carcinomatous tissue. 7. Presence of tumor. 8. Hematemesis and blood in the stools. 9. Vomiting some time after the ingestion of food.

Old Dominion Journal.

Diabetes Melletus, With Report of a Case.—Dr. Alexander G. Brown reviews the subject of diabetes melletus and reports a case of this disease which was evidently caused by a fall and injury to the brain, thus proving in so far as the case at least is concerned that the nervous theory of the disease is correct.

Post Operative Femoral Thrombo-Phlebitis.—Dr. Lewis C. Bosher reports a number of cases and gives Clark's theory as to the cause of the thrombosis being caused by injury to the epigastric veins by retractors. From the anatomic relations of the epigastric veins which enter the femoral vein at an obtuse angle to the blood current, cause an eddying motion of the blood according to Recklinghausen is another cause for the favorable condition for the formation of a thrombus. Sepsis may be considered as the active cause of most of these conditions.

Southern Medicine and Surgery.

Chronic Suppuration of the Middle Ear.—Dr. Frank M. Cunningham writes a valuable article on this ever interesting subject.

Book Notices.

Electro-Diagnosis and Electro-Therapeutics. By Dr. Toby Cohn, Nerve Specialist of Berlin. Translated from the Second German Edition and edited by Francis A. Scratchley, M. D., of New York. With eight plates and thirty-nine illustrations. Cloth, 280 pages. Price, $2.00. Funk & Wagnalls Company, New York and London.

This is an authorized translation, with reproductions of the original plates, of the most popular German manual upon the kindred subjects of the diagnosis of disease and its cure by the use of electricity. Its author,

Dr. Toby Cohn, of Berlin, is a practical instructor in these branches, and wrote the work to satisfy an imperative need in his classes. Dr. Mendel, of the University of Berlin, the well-known authority upon electro-diagnosis, pays the highest possible tribute to Dr. Cohn by noting the "interest and enthusiasm" of his students, and the "excellent and practical results" of his instruction."

As Dr. Cohn explains, in his preface to the first edition, the appeal of this work is to students and practicing physicians who are almost wholly ignorant of the subjects of which it treats, owing to the method in which these have hitherto been presented. "Students and physicians," says Dr. Cohn, "have in general an aversion to all mathematical explanations and technical discussions with which text-books of electro-therapeutics generally begin." Therefore he begins with an object lesson, the description of a single apparatus, a stationary apparatus for galvanic and faradic currents. Having presented in the simplest and briefest fashion the physical principles, a statement of which is demanded of any discussion, the author at once introduces the reader to the subject proper, actual diagnosis. In setting forth the physiological and pathological conditions to be considered, Dr. Cohn rightly confines himself at the start to those types that can be easily comprehended and retained by the beginner. This schematic method is gradually modified and rendered practical by the addition of those variations which will be found in regular practise.

In his electro-therapeutics, the author is less pedagogic and more advisory. It is a subject in which the student who has mastered and is practising electro-diagnosis can form his judgments for himself. Dr. Cohn not only permits but insists upon skepticism as the attitude to be assumed in such mooted questions as the curative power of the electro-therapeutic currents, whether it is purely psychological, the result of suggestion, or physiological in its nature.

The character of the work as an "object-lesson" text-book is greatly enhanced by the eight anatomical plates, with coverings of transparent paper upon which are indicated in red the points of application of the electro current. The book is thoroughly indexed.

The practical value of Dr. Cohn's work is thus briefly summarized by the editor and translator:

"It gives concisely all that is important in electro-diagnosis, and in electro-therapeutics all that is of positive value. It places electricity exactly where it belongs in a physician's armamentarium, as a curative agent. It will commend itself because of its excellent plates, its precise and very thorough explanation of the method of investigation and how to make an electrical diagnosis, and the careful instruction it gives for the proper use of electricity as a therapeutic agent. It presents so many good features in such an admirable manner that it should readily fill in this country the same place it has filled in Germany."

Gallstones and Their Surgical Treatment. By B. G. A. Moynihan, M. S. (Lond.), F. R. C. S., Senior Assistant Surgeon to Leeds General Infirmary, England. Octavo volume of 386 pages, illustrated with text-cuts, some in colors, and nine colored insert plates. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $4.00 net.

The great and increasing importance of the subject of gallstone disease is a sufficient warrant for the publication of this forelying work, and Mr. Moynihan's extensive experience in treating cholelithiasis specially fits him to write an authoritative and trustworthy work such as we have found this. A full account is given of the origin and causation of gallstones, and of the pathologic changes and clinical manifestations to which they give rise. Special attention has been paid to the detailed description of the early symptoms of cholelithiasis, enabling a diagnosis to be made in the stage in which surgical treatment can be most safely adopted. Every phase of gallstone disease is dealt with, and is illustrated by a large number of clinical records. The account of the operative treatment of all the forms and complications is full and accurate. The beautiful illustrations, a number of which are in color, including nine insert plates, are unusually clear and artistic, and form a special feature. We know of no book on the same subject that can in any way compare with Mr. Moynihan's work.

Diet in Health and Disease. By Julius Friedenwald, M. D., Clinical Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore; and John Ruhrah, M. D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Octavo volume of 689 pages. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $4.00 net.

This latest work on diet is practical and comprehensive, prepared to meet the needs of the general practitioner, medical student, hospital interne, and trained nurse. It contains a full account of food stuffs, their uses and chemical compositions. Dietetic man-

agement in all diseases in which diet plays a part in treatment is carefully considered, the articles on diet in diseases of the digestive organs containing numerous diet lists and explicit instructions for administering. The feeding of infants and children, of patients before and after anesthesia and surgical operations, and the latest methods for feeding after gastro-intestinal operations have never before been discussed with such practical detail. The subject of rectal enemata is given completely, with recipes and full instructions as to technic. Diet is considered in its relations to age, occupation, and environment; and the beneficial results from the rest cure have been accorded prominent consideration. There is also a section on food adulteration and the resultant disease.. Withal, this is a work well worthy the reputation of its authors, and we most cheerfully recommend it.

Diseases of the Liver, Gall-Bladder, and Bile-Ducts. By H. D Rolleston, A.M., M.D. (Cantab.), F. R. C. P., Physician to St. George's Hospital, London; formerly Examiner in Medicine at the University of Durham, England. Octavo volume of 794 pages, fully illustrated, including seven colored insert plates. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $4.00 net.

Dr. Rolleston's new work is undoubtedly the most voluminous treatise on diseases of the liver yet published in English. And more than that, it is destined to become an authority on the subjects of which it treats. The author has for many years made a special study of diseases of the digestive system, and his reputation in the treatment of hepatic diseases is sufficient assurance of the practical usefulness of this new work. The text includes all the affections of the liver, completely and clearly discussed, special attention being given to pathology and treatment. A large number of clinical cases are quoted, which will be found of great value to the practitioner in diagnosing individual cases. Besides diseases of the liver, the book contains articles on diseases of the gall-bladder and bile-ducts, which are equally as trustworthy and authoritative as the section on the liver. The illustrations, both those showing gross appearances and the microphotographs, are unusually excellent, and include seven colored insert plates of great merit. The mechanical appearance of the work is in keeping with the high standard of the text. We certainly most heartily recommend it to our readers.

Atlas and Epitome of General Pathologic Histology. By Dr. H. Durck, of Munich. Edited, with additions, by Ludvig Hektoen, M. D., Professor of Pathology, Rush Medical College, in affiliation with the University of Chicago. With 172 colored figures on 77 lithographic plates, 36 text-cuts, many in colors, and 371 pages of text. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $5.00 net.

This new atlas in Saunders' Medical Hand-Atlases is indeed a worthy addition to the series. All the accepted views regarding the significance of pathologic processes have been concisely stated, conflicting theories having been wisely omitted. The illustrations have been made from original specimens without combining different microscopic fields, extraordinary care having been taken to reproduce them as near perfection as possible. In many cases as high as twenty-six colors have been required to reproduce the original painting. In editing the volume, Dr. Hektoen has incorporated much useful matter; and unquestionably this atlas will be as favorably received as the previous volumes on special pathologic histology. In our opinion, it will be found of unusual value to the medical profession generally.

A Manual of Personal Hygiene. Proper Living upon a Physiologic Basis. By American Authors. Edited by Walter L. Pyle, A M., M.D., Assistant Surgeon to the Wills Eye Hospital, Philadelphia. Second Edition, revised and enlarged. 12mo volume of 441 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Bound in Silk, $1.50 net.

A short time ago, when Dr. Pyle's work first appeared, we gave it our unqualified recommendation. The new second edition, just issued, is evidence that his work has filled the need. Personal hygiene is applied physiology, and a proper understanding of certain elemental truths on practical human physiology must first be acquired before it can be applied. Knowledge of the normal functions of the body and simple methods of keeping them in healthy action is the one thing that no educated person should be excused from possessing. The ordinary instructions in physical education, physiology, dietetics, and exercise is not sufficient, and often faulty. Dr. Pyle has selected eight prominent American physicians, each writing upon his chosen specialty, and setting forth the means of health in this "Manual of Personal Hygiene" with a *simplicity*, *conciseness*, *and authority* that has never been approached in any similar work.

In this new second edition there have been added, and fully illustrated, chapters

on Domestic Hygiene and on Home Gymnastics, besides an appendix containing methods of Hydrotherapy, Thermotherapy, Mechanotherapy, and First Aid measures in medical and surgical accidents and emergencies. Physicians could render no better service to their patients than the recommendation of this book.

Beauty Through Hygiene Common Sense Ways to Health for Girls. By Emma E. Walker, M. D., Member of the New York Academy of Medicine, etc. Illustrated. New York: A. S. Barnes & Company, 1904.

Popular books on medical subjects, sufficiently detailed to be of real value, and yet not so sophisticated as to lead to harmful attempts at lay prescribing, are unfortunately rare. It is therefore a pleasure to encounter so useful and well-balanced a work as is this little volume, and the author is to be congratulated on having successfully accomplished a difficult task. Binding and presswork are dainty enough to appeal to any feminine reader, and the style is equally charming, while there is not a statement or piece of advice in the book that would not be heartily endorsed by any experienced physician. There is hardly a medical man, no matter what his specialty, who has not often wished for some such book to put into the hands of his women patients for the purpose of giving them the necessary information on the hundred and one details of hygienic living that are so often neglected through ignorance, and every page of the present volume is replete with wholesome, common-sense advice, Massage and corrective exercises, the care of the skin, hair, mouth, eyes, nose, and ears, etc., diet in health, and for the purpose of gaining or diminishing weight, bathing, clothing and many others equally practical, are some of the topics discussed.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia. Assisted by H. R. M. Landis, M. D., Assistant Physician to the Out Patient Medical Department of the Jefferson Medical College Hospital. December 1, 1904. Lea Bros. & Company, Philadelphia and New York. $6.00 per annum.

This book consists of original matter written by authorities in their respective departments, who give in an interesting narrative form, a clear statement of the world's advances in every branch. It is issued every three months, either in cloth or paper binding. The volume that is before us now contains a great deal of valuable matter. Among the contributors to it we notice some names that are internationally known.

Transactions of the Association of American Physicians. Nineteenth Session, held at Washington, D. C., May 10th and 11th, 1904. Volume XIX. Philadelphia: Printed for the Association, 1904.

The transactions of this Association come to us this year in a handsomely bound volume of about 575 pages. It has a great many beautiful illustrations and altogether is as valuable as any volume of the kind that has been published in this country for many years.

The Practical Medicine Series of Year Books. Comprising ten volumes on the Year's Progress in Medicine and Surgery. Issued Monthly. Under the General Editorial Charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume IX. Physiology, Pathology, Bacteriology, Anatomy, Dictionary. Edited by W. A. Evans, M.S., M.D., Adolph Gehrmann, M. D., William Healy, A. B., M. D. August, 1904. Chicago: The Year Book Publishers, 40 Dearborn Street. Price $1.00. Price of Series of ten volumes $5.50, payable in advance.

This volume is one of a series of ten issued at monthly intervals to cover the entire field of medicine and surgery. Each volume being complete for the year prior to its publication on the subject that it treats. These books are published principally for the general practitioner. At the same time the arrangement in several volumes enable those interested to buy only the numbers they desire. The book contains a great many beautiful illustrations and the volume makes a very handsome appearance.

How to Study Literature. A Guide to the Intensive Study of Literary Masterpieces. By Benjamin A. Heydrick, A. B., (Harv.) Professor of English Literature State Normal School, Millersville, Pa. Third Edition, Revised and Enlarged. Hinds, Noble & Eldredge, Publishers, 31-33-35 West 15th Street, New York.

This book is intended to aid in the study of literature. It is generally conceded that the best method is to take up certain literary masterpieces. But how shall a masterpiece be studied? A play of Shakespeare's is before the class. The text-book is provided with an introduction and notes. The introduction gives the dates and sources of the play; the notes explain difficult words

and illusions. It is easy to assign lessons on this basis, and very easy to set examinations on it. Yet a class may know introduction and notes thoroughly, and still be far from appreciating or even understanding the play as a piece of literature. For the introduction deals with facts of literary history, the notes with philosophy, grammar and manners and customs of the times. This information is valuable, it is indispensable, but it is, after all, only a means to an end, and that end is the appreciation and enjoyment of the literary masterpieces.

The aim of this little book is to facilitate the systematic, careful and appreciative study of literature as literature. It concentrates attention upon the text itself, not upon editorial explanation or comment. It furnishes means by which the student may ascertain for himself the general characteristics of the book studied. It acquaints him with the fundamental principles of literary construction and asks him to decide for himself how far these principles have been observed. Not to present ready-made opinions for his acceptance, but to teach him to see for himself and to judge for himself is the aim throughout.

Outlines are given for the study of six literary types: in poetry, the epic, lyric, and drama, in prose, fiction, the essay and the oration. These classes include practically all of the books prescribed for the college entrance examination and those studied in the first years of college work. The book is not intended to supply any of the textbooks used, but to supplement them, to be used with them as a guide. It contains 150 pages and is nicely bound.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners. By Leading Members of the Medical Profession Throughout the World. Edited by A. O. J. Kelly, A.M., M.D., Philadelphia, U. S. A. With the Collaboration of Wm. Osler, M.D., Baltimore; John H. Musser, M D., Philadelphia; James Stewart, M.D., Montreal; J. B. Murphy, M.D., Chicago; A. McPherson, M.D., Toronto; Thomas M. Rotch, M.D., Boston; John G. Clark, M.D., Philadelphia; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Edmund Landolt, M.D., Paris; Richard Kretz, M.D., Vienna. With regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume III. Fourteenth Series, 1904. Philadelphia: J. B. Lippincott Company, 1904. Price, Cloth, $2.00 net.

This volume is equal if not superior to any that has ever appeared before of this series. It contains over 300 pages and a great many beautiful illustrations. Among the articles that deserve special notice is the one by A. H. Ohmann-Dumesnil, M.D. The title of his paper is the Differential Diagnosis of Syphilitic Eruptions, His paper is well illustrated. He goes into the subject in a way that indicates that he is master of the subject with which he is dealing. Every practitioner should subscribe to the International Clinic.

Literary Notices.

When the pastor of the City Temple, and the most popular preacher in London, writes of "Sabbath Observance," suggestions of practical value may be looked for, and American readers will welcome the Rev. R. J. Campbell's article, which The Living Age of November 12 reprints from The National Review.

The novel complete of Lippincott's Magazine for December is timely and taking. It is by Alden March, an editor of the Philadelphia Press, and is called "A Darling Traitor." It pictures all the intrigue and human frailties of a great political campaign, and, besides, it tells a love-story most fascinating and most real. The "Darling Traitor" is a fresh youngster who knows the town as only such kids can, and his dereliction wins a husband for one of the nicest girls in recent fiction.

Sir John Macdonell's notable article on "The Rights and Duties of Neutrals," suggested by President Roosevelt's proposed conference, is reprinted from The Contemporary Review in The Living Age for December 3. Another article of special timeliness, The Edinburgh Review's discussion of "The Political Situation in England," will be found in The Living Age for December 10.

The genuine expression of children's thought has a perennial interest, and the collection of "Children's Essays" which an English school supervisor contributes to The National Review is especially piquant. American readers will find it in The Living Age for December 3.

A distinctive feature of the Review of Reviews for November is the series of sketches of men of the hour, including, be-

sides an elaborate character study of the late Senator Hoar, by Talcott Williams, briefer articles on Mr. John Morley and Mr. James Bryce, who are now visiting the United States; on Commander Booth Tucker, of the Salvation Army, whose work in America is just closing; on the late F. A. Bartholdi, the designer of the statue of "Liberty" in New York Harbor; and on the late Lafcadio Hearn, the interpreter of Japan to the Western world. Mr. Herman Rosenthal writes on "Prince Mirsky, Russia's New Minister of the Interior," and Mr. W. T. Stead contributes an interesting character sketch of Lord Grey, the new Governor-elect of Canada. Mr. Stead's article is followed by two other Canadian papers of exceptional interest,—"The Trend of Political Affairs in Canada," apropos of the approaching elections, by Miss Agnes C. Laut, and "Western Canada in 1904," by Theodore M. Knappen. "Iowa's Campaign for Better Corn," by Prof. P. G. Holden, is a suggestive account of the work performed last spring by the so-called "Corn Gospel" trains. Mr. Edward A. Moseley, secretary of the Interstate Commerce Commission, contributes an authoritative article on American railroad accidents; their causes, and the means of securing greater safety in travel. Miss Florence E. Winslow reviews the work of the Episcopal Triennial Convention, which has just completed its sessions at Boston. "What the People Read in Hungary" is the somewhat out-of-the-way subject of a paper by John Skotthy. The closing phases of the Presidential campaign, the developments in the Russo-Japanese war, and other topics of the hour are discussed in the editorial department, "The Progress of the World."

Abstracts of the Leading Articles of the Month.

Result of Operation for Uterine Cancer.

Duret and Besson in the British Medical Journal, records their experience in hospital practice from 1891 to 1903 inclusive. Out of 173 cases of uterine cancer, 104 were too advanced for operation when admitted, 69 underwent hysterectomy—namely, the vaginal operation in 40, with 6 deaths (15 per cent mortality), and the abdominal operation in 23, with 10 deaths (43.4 per cent mortality). Turning to the 6 deaths after the vaginal operation, 3 patients were in bad general health, and 1 of these died of internal hemorrhage, 7 of suppurative peritonitis, and 1 from damage to the sigmoid flexure. There remain 3 who were in good health, and of these 1 died of shock, 1 of pneumonia, and one of cardiac disease on the tenth day, with no evidence of sepsis or hemorrhage. The ten deaths in the 23 abdominal operations were due to shock in 4 cases, septicemia in 3, ligature of both ureters in 1, laceration of bladder and section of a ureter in 1, and cardiac failure due to mitral obstruction in 1. Thus although the abdominal operation is becoming more popular than it was ten years ago, the immediate results are unfavorable.

They find that the after-histories are yet more unsatisfactory. For after carefully following up 34 of the vaginal cases and 9 of the abdominal which recovered, the results in the vaginal cases were: 13 patients free from recurrence at the end of one year, 8 free between one and two years, and 13 free over two years after operation. Of the 9 abdominal cases which recovered from hysterectomy and were followed up, 6 died within ten months, 1 seven months after operation, and 1 in six months. The patient who died in seven months was reported as "in advanced cachexia."

The Treatment of Pancreatic Cysts.

Villa, in the British Medical Journal, concludes an article on glandular cysts of the pancreas, based on a case under his own care and discusses the surgical treatment of these growths. Total extirpation, it is held, is the logical and ideal method, and is the only kind of intervention that is really useful when the cyst is neoplastic and of the nature of a malignant growth. Unfortunately this operation is a serious one, and the surgeon will often be compelled to have recourse to marsupialization, which, as has been proved by statistics, affords excellent results. The following are the different stages in the operative treatment of a case in which pancreatic cyst has been diagnosed: (1) Laparotomy; (2) exposure of the cyst by successive division of the membranes over its anterior surface; (3) puncture of the cyst and evacuation of its fluid contents; (4) closure of the orifice in the cyst wall by pressure forceps; (5) exploration of the abdomen with regard to adhesions and the relations of the tumor with neighboring organs. The surgeon has now to decide between two alternatives. If the adhesions can be readily divided and are not very vascular, he should remove the whole of the cyst; if, on the other hand, the adhesions be very dense and very vascular, he should marsupialize the cyst, and if anterior drainage seems to be insufficient, make also an opening for posterior drainage in the lumbar region.

The Serum Therapeutics of Snake-Bite.

George Lamb in the London Lancet, says that antivenomous sera are markedly if not absolutely specific, even between the

venoms of species of the same genus. Hence, in any case of snake-bite the venom of that species which has inflicted the bite must always be used.

The difficulties in collecting the poisons of the different species of snakes in sufficient quantity for purposes of immunization are apparently very great.

Up to the present the only sera which have been used practically are the one prepared by Calmette and the one prepared with pure cobra venom. Both these sera are practically specific for venom.

As the neutralizing power of these two sera is not great, and as a cobra can inject a large amount of venom, the serum must be given in large quantity; as much as 300 to 400 cubic centimeters, even when given intravenously, would be necessary in some cases. If given subcutaneous from ten to twenty times this amount would be required. It should therefore always be given intravenously.

Experiments on dogs and the records of cases of cobra bite in man bear out these calculations.

It is evident from the above considerations that it is a question as to whether the advantages to be gained by the serum treatment of cases of snake-bite are at all commensurate with the cost entailed in the preparation of the sera.

The Influence of Operative Procedures Upon Blood Pressure.

Crile, in the London Practitioner, states that diminution in blood pressure is the essential phenomenon in surgical shock, which is due to exhaustion of the vasomotor centres. Collapse is the result of hæmorrhage which is necessarily attended by a fall of blood pressure. In collapse stimulants and saline injections are indicated.

In shock digitalis, nitroglycerine, alcohol and other stimulants are useless.

Strychnine being a pure vasomotor stimulant will double the normal blood pressure for hours when given in full doses, but if given too frequently the blood pressure will fall from exhaustion of the vasomotor centres. Neither strychnine nor saline injections are of any value in shock. The only methods which are of value are those which act directly upon the peripheral circulation. The author has devised an india rubber suit which can be inflated when worn and produce uniform pressure, thus causing artificial peripheral resistance. By such means the blood pressure in shock may be raised. Suprarenal extract, by intravenous injection, will raise the blood pressure in shock, but its effect is of short duration and it must be frequently repeated. Cushing advises frequent estimation of the blood pressure during operations to anticipate and ward off shock. This is much better than mere digital estimation of the radial pulse. During narcosis there is a fall of the blood pressure. Operations upon the upper part of the abdominal cavity produce more profound effect than those which involve the lower part, and the results seem proportional to the injury inflicted on the peritonæum. The removal of large tumors or large quantities of fluid from the pleural or abdominal cavities frequently causes much lowering of pressure, and the same is true when the peripheral or central nervous system is greatly interfered with. Surface operations, which do not involve large nerves, cause little change in pressure, the reverse being true of operations upon the genital organs.

A Rotary House for Consumptives.

In the South of France, says the Indian Medical Record, may be seen an interesting little structure, which has earned the name of the "Villa Tournesol" from the fact that the dwelling is always turned towards the sun. It was erected by a well known French architect, M. Eugene Pettit, at the advice of Dr. Pellegrin, who contends, that houses on this plan are ideal houses for those with weak chests are affected lungs. The house is square in shape, and the weight is carefully distributed. It is built on a steel turntable, which can be revolved by a slight effort. The dwelling is built of stone, brick and iron, and is in every sense a well built and finished dwelling. Running through the centre of the structure, to the foundation is an upright rod, with a crossbar forming two handles like a capstan. By means of this arrangement, two men can turn the table and the house at the same time. There are holes in the platform for the passage of water, sewer pipes and electric wires, etc. Another interesting fact is the absence of windows, at the sides and back of the house, so that there can be no draughts. "A house of this description," says Dr. Pellegrin, "situated in a fine, healthy, sunny climate, is the best possible way of curing consumption and similar diseases."

Abortive Treatment of Gonorrhoea.

Engelbreth (Monatshefte fur Praktische Dermatologie) makes the following statements: In every case of gonorrhœa the disease is limited to the epithelial layer for a greater or less space of time. The treatment must therefore be instituted early, and not cover too much time in itself. The latter is a point of objection to the Janet method As gonococci rapidly extend over a large surface of mucous membrane the treatment, in order to be effective, must reach the entire anterior urethra; this is

where the older abortive methods fail. The gonococci rapidly penetrate all the epithelial layers; it has been determined conclusively that the ordinary gonococci remedies do not penetrate sufficiently. The removal and destruction of epithelium is therefore necessary to successfully carry out any abortive treatment. This can only be accomplished by the rapidly repeated use of solutions of nitrate of silver. This is the basis of the author's method of treatment. He first irrigates the anterior urethra with 500 c.c. of a hot ¼ to ½ per cent. solution of silver nitrate; the meatus and fossa navicularis are then wiped out with a 3 per cent. solution of silver nitrate. This is followed by a thick, pasty discharge, from which gonococci have disappeared. After four hours a second irrigation of a 1-5 per cent. solution is employed; this completes the treatment. Of 30 cases treated by the author in this way, 26 were cured in from ½ to 2 days; all cases were observed for three weeks.

The necessary indications and conditions for this method of treatment are as follows: The urethrites must not have existed for more than one or two days; there must be no inflammation of the meatus; the urine in the first glass must be clear, containing only shreds.

He says that a scanty secretion with few gonococci and epithelial cells is a favorable sign; that a long period of incubation is not a contraindication, but on the contrary a sign that the gonococci are not very virulent, and that the disease is more liable to be localized and readily treated.

Cancer of the Breast.

Rodman, in the British Medical Journal, says: Cancer is not only increasing in frequency, but occurs in the young and in races previously immune. The prognosis is less favorable in the young as the lymphatics are more numerous. An early diagnosis is imperative, but in 9 per cent. of all cases it cannot be made clinically. When the malignancy is in doubt a complete operation should be arranged for. Cancers of the sternal hemisphere are more frequent than is thought, and their prognosis is worse. Recurrences being usually in the skin its removal cannot be too free. Skin grafting is often necessary. Both pectoral muscles (major and minor) should always be removed, so that all diseased tissues can be taken away in one piece. The supraclavicular glands should be removed if palpable. Wounds of the axillary vessels are infrequent when the muscles are removed. Of 24 resections of the axillary vein none were fatal. Drainage should always be made. Volkmann's three year limit is insufficient and should be extended to five years. The operative mortality of 2,133 operations was 9 per cent. Radical operation, if early, should give more than 50 per cent. of cures.

Handley calls attention to certain defects in the operation for mammary cancer. Since the growth spreads along the deep fascia and not along the skin, it is unnecessary to remove so large an area of skin as to prevent complete suturing of the wound. The deep fascia, on the other hand, should be removed in a downward direction as far as a horizontal line running three inches below the tip of the ensiform cartilage. Every particle of the origin of the great pectoral should be removed from the rectus sheath. He also recommends a modified curved incision, so as to prevent pulling open of the wound.

Occurrence of Bacteriuria.

D. Cnopf (Munch. med. Woch.) points out that autoinfection plays a prominent part, for the majority of patients were girls suffering from enterocolitis, where contamination of the genitals was hardly avoidable and the short urethra facilitated infection of the urinary passages. With boys the explanation is somewhat more difficult, but it has been shown that bacilli can readily wander through lesions of the rectum into the bladder. Infection by way of the blood is not yet absolutely proven, though colon bacilli have been found in the circulating blood of infants suffering from enteritis. A bacteriological examination of the bladder-contents in such cases may show the presence of colon bacilli, even if there are no vesical symptoms. There must be some concomitant weakness of the bladder-wall induced by cooling off of the body, retention of urine or general intoxication, especially if the kidneys are much diseased, The symptoms may be very mild or very severe; in the latter case there is high fever, chilliness, nausea and constipation. The abdomen is exceedingly tender and burning, saturated urine is constantly voided in small amounts. On examination it contains albumin, mucus, pus, epithelium and even red blood cells. The colon bacillus, exceptionally the *bacterium lactis aerogenes* or the *diplococcus pneumoniæ* are found in large numbers. The condition may run its course in one to two weeks, but obstinate recurrences may follow. Oftimes an obscure temperature curve is due to this bacteriuria. Serious complications, such as urethritis, pyelitis, nephritis or uremia hardly ever occur in children, but treatment should be prompt and energetic. Urotropin internally is harmless in children and efficient, though it must often be given for weeks. Bladder irrigations with dilute antiseptics are of course in place.

Condition of the Lower Limbs Often Mistaken for Phlebitis.

William Bennett, in the British Medical Journal, describes the symptoms of this disease as follows: Acute onset of pain or intense stiffness increased by movement; tenderness along certain definite areas increased by pressure; rapidly supervening general swelling below the seat of lesion, which "pits" on pressure, and which is increased when the erect position is assumed, or if the limb is materially dependent, subsiding on the other hand (if the phlebitis has ceased to extend), when the recumbent position is assumed and the affected part elevated; the essential part of the treatment being rest. For comparison with this, a condition of the lower limbs is met with, commencing with rapidly oncoming pain somewhat diffusely inclined, but irregularly limited to certain areas, increased only upon slight (superficial) pressure, and completely relieved by deep or heavy pressure. There is some swelling of the limb, wholly, or in parts only, the swelling being of the nature of a general engorgement; there is no œdema; and hence no "pitting"; it is not increased by assuming the erect position, nor is it appreciably diminished in the recumbent or flat position. The swelling is for practical purposes independent of posture. The same may be said of the pain, which nevertheless, is much influenced by heat or cold, sometimes by one, and sometimes by the other. The patients, as a rule, are not neurotic, but rather the reverse. The swelling, when not involving the whole limb, is fairly limited to the areas supplied by the internal and middle cutaneous nerves, the saphenal plexus, the external cutaneous nerve in the thigh, and the musculo-cutaneous nerve at the outer side of the leg and the dorsal aspect of the foot. When the whole limb is swollen, the general contour of the normal part is preserved in striking contrast to the bolster-like limb of thrombosis. The reflexes are unaltered. Little can be said concerning the cause of the trouble. The condition may have some relation to osteoarthritis. Possibly some vasomotor disturbance is at the root of the swelling. As to treatment, rest has no beneficial effect in these cases. The main object is to find the best means to shorten the course of the complaint. Massage, electricity, and passive movement, followed by resistance exercises are indicated. To these may be added moderate exercise up to the point of resistance. By this is meant the point at which pain or stiffness renders exercise impossible without great effort. By these means the course of the disease is doubtless much shortened.

High Position of the Scapula.

Vorobyoff (Roussky Vrach) mentions two cases of this condition in one of which the deformity was of an hysterical origin but so stubborn that the patient, otherwise a perfectly healthy man, was freed from military service after three and a half months of close observation in a hospital. While under chloroform the deformity could be reduced until both shoulders appeared perfectly normal. But even during the process of waking up from narcosis the scapulæ and the shoulder-joint gradually slipped back into their former position. In the second case the deformity was due to a congenital torticollis in which an operation performed some years ago, placed the head in a normal posture but failed in any way to influence the position of the scapulæ. The shortening of the left sternocleidomastoid muscle, its influence on the function of the clavicle and the entire half of the shoulder-joint became clear from the history of the disease. Such cases are not rare, as it is a well-known fact that at a certain stage of torticollis the scapulæ, as well as the entire shoulder of the affected side, takes in a higher position, at times even touching the corresponding ear. He draws the following conclusions: (1) High position of the scapulæ as an independent affection and may be either acquired or congenital. (2) The congenital variety, as described by Sprengel, depends principally on bony changes of the scapulæ or alterations in the muscles inserted into it. Kaush has demonstrated the importance of the lower portion of the trapezoid muscle in the etiology of this affection. (3) The acquired forms depend on rachitic changes in the bone of the scapula itself. The first case described by the author belongs to the acquired type in which the affection of the muscles was due to muscular dystrophy. (4) Cases of congenital or acquired high position of the scapulæ in which its position is to be ascribed to causes not to be detected in the bone itself or in the neighboring muscles, should be strictly distinguished from the variety of Sprengel and from similar affections.

Missed Labor; Fetus Retained Three Months.

Goldenstein, in the British Medical Journal, says that he was consulted by a patient who had become pregnant, and noted that after feeling the motion of the child it ceased completely one day, when labor pains set in and continued for a few hours. Apparently this attack of uterine pain occurred at term. No vaginal discharge followed. The patient's health was good, and all she asked for was to be delivered of the uncertainty of her condition. She was

forty, and had been normally delivered eight times. She had enlarged spleen from malaria (living near Jassy). The abdomen was pendulous, with a small umbilical hernia. There was neither pain nor high temperature. The uterus on palpation seemed as large as at term; the fetal outline was clear. The cervix was very soft, the os admitted two fingers, the breech presented. Goldenstein ruptured the membranes, and a little fetid brown fluid escaped. The author brought down the right foot with care, and had to extract the fetus very slowly, as it was in an advanced state of maceration, and he feared that the head might be torn off. The left femur was broken. The fetus was at length delivered entire. There were no uterine contractions, and no pain of any kind was caused by the manipulations. On compression of the fundus, the placenta—a necrotic mass—fell out. No hemorrhage followed. The uterus was washed out with a sublimate solution and the puerperium was normal. The fetus was nearly 20 inches long. Goldenstein notes the evident authenticity of this case as a "missed labor," the good health of the patient during the retention of the fetus, the entire absence of the uterine pains when the child was extracted, and the freedom from flooding or even from the least hemorrhage during or after extraction and removal of the placenta.

First Anatomical Changes in Tuberculosis of the Lungs.

Abrikossoff, in Virchow's Archiv, says that he found only two cases suitable for study in several hundred autopsies. Pulmonary phthisis in adults he says is generally due to a recent infection with tubercle bacilli and not a result of an exacerbation of a latent process acquired during infancy, as is held by so many. In most cases the lungs themselves are the starting-point of the process; in other words, pulmonary tuberculosis is a primary and independent lesion. The disease begins as a rule in the intralobular bronchi of the apex of one lung, in the form of a productive, tuberculous peribronchitis. Owing to loss of elacticity, as a result of caseation of the primary neoplastic tissue, a circumscribed dilatation of the bronchial lumen will follow. The process spreads from its primary sites in different ways. It travels both in centripetal and centrifugal direction along the bronchus and its branches, giving rise to a tuberculous, peribronchial lymphangitis. The neoplastic tissue surrounding the bronchus, may readily break through the bronchial lumen, both at the primarily and secondarily infected sites and the symptoms of a specific tuberculous bronchitis will soon appear. Cheesy bronchitis and peribronchitis of the intralobular bronchus and its immediate branches, are thus the first stage of the tuberculous lesion. The process may also extend to the adjacent tissue, when it generally retains its productive character and presses together the alveoli of the lung. As soon as cheesy masses have ruptured into the bronchus, an aspiration occurs into peripherally situated areas, and several patches of bronchopneumonia will appear, each one of which corresponds to the terminal end of a bronchus. This may be called the second act of the process. Most recent cases examined were in this bronchopneumonia stage with beginning central caseation as far advanced that an idea of the original structure could only be obtained by staining for elastic fibers. The blood-vessels are not rarely affected by a productive process which surrounds them like a belt and goes hand in hand with a proliferation of the intinia. Vessels of larger caliber are, however, free. The elastic fibers are destroyed late and then in a purely mechanical way. The bronchopneumonia distribution of the initial foci may also be seen in hematogenous miliary tuberculosis and in the experimental tuberculosis of animals; it argues, however, strongly in favor of a primary infection of the lungs in most cases. There can be no doubt that bacilli are often inhaled and the fact that they settle so frequently in the apices is best explained by diminished powers of overcoming an infection here. In children the bronchial nodes are generally affected, first, from the respiratory passages and the lungs are involved secondarily. Bronchial tuberculosis of children has a tendency to remain latent for a long period and encapsulation is never perfect, but with adult age the dangers of propagation become less, owing to calcification and proliferation of connective tissue. At this stage, the bacilli are no longer transported to the glands, but to the lung itself. Secondary involvement of the lungs in children is due to rupture of cheesy material through the walls of the bronchus nearest the node or else by extension of the process into the perivascular lymph-channels of the bronchus. The secondary foci within the lungs do not develop in a typical way, like the primary, unless they spread by way of the bronchi.

Ankylosing Arthritis in Tuberculosis.

Poncet and Leriche, in the London Lancet, says that a tuberculous arthritis of dry or plastic character exists which leads very generally to a bony ankylosis of the affected joints. From this tendency to bony fixation of the joints the affection has been described as ankylosing tuberculous arthritis, a similar tendency being apparent in all the infective forms of arthritis, especially

that due to gonorrhea. The condition attacks one or more joints, sometimes practically all (monoarticular, oligoarticular, or generalized arthritis). Spondylitis deformans of the Strumpell-Marie type frequently belongs to this group of arthritis, and also other varieties of ankylosing articular manifestations, such as the type of Bechterew. It is sharply marked off by the simple inflammatory character of its lesions and by the absence of granulations, of caseation, and of fungoid masses from the ordinary tuberculous disease of joints and from chronic rheumatism and rheumatoid arthritis. It is very probably the result of infection of bacillary toxins, sometimes originating, as is most frequently the case, from virulent tuberculosis foci at a distance, whether hidden or apparent, and sometimes elaborated in the blood current. This latter condition of bacillemia would explain the cases of primary tuberculous ankylosing arthritis (type of Bouillaud), in which under the form of an acute articular rheumatism there is the manifestation of a bacillary infection, of which no other suspicion might be forthcoming. The condition is always grave from the point of view of the recovery of function of the affected joints, but is relatively benign in its mono or oligoarticular forms. In its generalized form, however, it is a terrible disease, since the skeleton becomes practically a rigid bony frame. In all cases it is the sign of an infection which under certain conditions might change in character, become more virulent, and affect various viscera. In cases of arthritis of plastic or ankylosing polyarthritis one should regard tuberculosis as the pathogenic factor, and remember, moreover, that the patient may be free from other infections.

Tuberculous Cirrhosis of the Liver.

Giordano, in Reforma Medica, mentions a case of cirrhosis of the liver in a tuberculous woman. The case presented the clinical picture of a hypertrophic cirrhosis, and there were no signs in the lungs, except an increased resistance over the right, posteriorly. The patient died after a period during which there was hectic fever resembling that of tuberculosis. On autopsy no lesions were found in the parenchyma of the lungs, but one or two caseous lymph nodes were found in the bronchi, and the pleuræ were adherent over the right lung. The liver, on the other hand, presented a picture of diffuse sclerosis. While the importance and frequency of cirrhosis in tuberculous subjects is well recognized, we do not know whether this cirrhosis is the effect of the invasion of tubercle bacilli, or of the toxines of these germs. In this case there was a tuberculous pleurisy, and a tuberculosis of the bronchial glands, but the liver did not show any tubercles. The liver at first was hypertrophic, but afterwards the hepatic cells died and were replaced by sclerous tissue. The typical form of cirrhosis which occurs in tuberculous subjects is that accompanied by fatty degeneration of the parenchyma and by hypertrophy of the organ. The clinical signs are an enlarged, smooth, and hard liver, a coincident tuberculosis elsewhere, ascites (which, however, may be absent), jaundice, and in some cases the signs of a tuberculous peritonitis. The jaundice, according to Hutinel, is really a subicteric state, which shows that in addition to the cirrhosis there is also a complicating parenchymatous hepatitis. Anatomically the typical cirrhosis of a tuberculous subject shows an enlarged liver, of an intense yellow color, rasping when cut, hard to the touch, with rounded margins and hepatic islands surrounded by bands of yellow connective tissue, while under the microscope we find diffuse fatty degeneration of the parenchyma, together with the formation of new connective tissue, or biliary canaliculi, and of blood vessels.

Influence of Milk Diet on the Circulation.

Colombo, in the Reforma Medica, has investigated the effect of an exclusive milk diet on the circulation of a healthy person and draws some interesting conclusions as to the effects of this diet on the blood pressure. The only work thus far published on this question is that of Maximovitsch and Rieder, who found that the ingestion of large amounts of certain fluids raises the blood pressure. This they found especially to be true of beer, and next to this of wine, coffee, tea, milk, cocoa, and water. He does not concede the correctness of their conclusions and believes that the instruments which they used were inaccurate. The writer used Mosso's accurate sphygmomanometer, which graphically records the blood pressure. In a former paper the author showed that the frequency of the pulse and the height of the blood pressure are inversely proportionate to each other. During digestion after meals, the blood pressure is lowered, owing to the dilatation of the abdominal vessels, and at the same time the pulse rate increases, the respiration becomes more frequent, and the temperature rises slightly. The ingestion of large amounts of milk elevates the blood pressure at first, owing to the mechanical presence of increased fluid, and not owing to the simple vasomotor effect of digestion. At the same time the pulse rate is increased, owing to the necessity of the heart to drive more fluid through the arteries, but the temperature is not elevated perceptibly, owing

to the lessened heat production in the blood as the result of increased fluid. After the milk has been absorbed, however, there is a slight rise of temperature and a fall of blood pressure. This depression of the blood tension is due to the fact that milk induces diuresis, and is eliminated more rapidly than is necessary to maintain the balance of the organism.

Marmorek's Antituberculous Serum in the Treatment of Pulmonary Tuberculosis.

Richer (Montreal Medical Journal) presents a series of seven cases with temperature charts and diagrams of the pulmonary lesions, and a resume of their clinical history. The course of these cases during and after their repeated inoculations with this serum was almost uniformly favorable. The observations do not extend over a sufficiently long period to enable the writer to say whether the effects will be permanent. In one case which was reported in May, 1904, the physical signs of tuberculosis entirely disappeared after 30 inoculations, and the sputum contained no bacilli. Two months later, this same patient who was supposed to be cured again had bacilli in her sputum and a slight indication of the return of the disease at the original spot. This observation has the value of a control experiment, and the writer proposes to watch the symptoms, use the serum again, and note and publish the rusults. An inference which he thinks may be drawn is that we have fair evidence that Marmorek's serum is antitoxic and capable of conferring passive immunity, and that consequently it is probable that it can be used to protect human beings while under treatment with bacillary extracts of the tuberculin group. The human organism under treatment in such cases would be attempting to produce its own antitoxin, as well as its bactericidal humors. He is now attemptiug that form of treatment, and hopes soon to be able to publish his observations.

Differential Diagnosis of Neuritis.

Oppenheim (Jour. f. Psych. und Neurol) believes that a diagnosis of neuritis is often erroneously made in cases with pains which are really of hysterical or neurasthenic origin, and that this error has had a very unfavorable effect on the course of such cases. In almost all those cases in which neuritis has been wrongly diagnosed, the only objective symptom has been tenderness of the nerves on pressure. From the examination of a large number of cases of hysteria, neurasthenia and hystero-neurasthenia he has come to the conclusion that the mechanical excitability of the sensory nerves is increased in neuropathic individuals apart from any inflammatory changes in the nerves.

The writer has examined 180 cases from this point of view—confining his attention mainly to the nerves of the arms—and found that 36 of these exhibited undue susceptibility to pressure on the nerves, as indicated either by localized pain at the point of pressure, or, much less often, by paresthesia, radiating along the nerve tract. This undue susceptibility of the sensory nerves is not always general, but may be confined to certain nerves.

He concludes that tenderness of the nerves on pressure cannot be considered as sufficient datum to found a diagnosis of neuritis on.

Hereditary Jaundice.

Pick (Wien. klin. Wochenschr) gives a few interesting histories of several members of one family, all of whom were afflicted with hereditary jaundice. The first case was that of a soldier, who went into hospital last November. From his youth he had always been jaundiced. His mother, who had died in her thirty-fifth year a few hours after her tenth confinement, had also been jaundiced since birth. A seventeen-year-old brother and a twenty-six-year-old sister of the patient had also been jaundiced since birth. Two other sisters were alive, healthy, and had never been jaundiced. The father occasionally suffered from epileptic fits. The patient himself had always all his life suffered from a weak stomach, fatty food and meat had been especially badly borne, while, on the other hand, vegetables were always well digested. For some time he had suffered from pain in the right hypochondrium, from loss of appetite, and now and then from vomiting of mucus. He had suffered from no other disease.

Metrorrhagia in a Girl Aged Fourteen Years.

Walls (Jour. Obst. and Gyn. Br. Emp.) reports a case of metrorrhagia in a girl of fourteen years.

Examination showed the cervix uter to be rather large, flabby and the uterus anteflexed. Curettage was performed and the scrapings were examined. The scrapings showed a great amount of interglandular, small-celled infiltration. The glands were, for the most part, small, but here and there were seen one or two of unusually large lumen. There was no great increase of vessels.

There was no history of hemophilia in the family. These conditions, he believes, points to some amount of agreement with those found by Dr. Donald in a case of persistent menorrhagie in an adult and which he was inclined to regard as one of "idiopathic endometritis."

Infantile Syphilis.

Still, in the London Lancet, says, that a striking feature in the family history of syphilitic children is the frequent absence of any history of syphilis in the mother. The syphilitic fœtus, as its disease progresses develops an antitoxine which imparts immunity to the mother. The various modes of transmission can be arranged according to order of frequency, as follows: (1) father syphilitic, mother healthy; (2) father and mother syphilitic; (3) mother syphilitic, father healthy; and (4) mother acquired syphilis during pregnancy. The mode of transmission apparently does not make any difference to the disease in the infant, either in the character or the severity of the symptoms. The later the stage of the disease in the parents the less the severity of the symptom in the child. Inherited syphilis rarely manifests itself at birth, but certain symptoms are very suggestive: among them are pemphigus, jaundice the result of intercellular cirrhosis, snuffles, enlargement of the liver and spleen, and certain changes in the fundus oculi. An unusually abundant crop of dark hair is a curious association of congenital syphilis at birth. Spontaneous hæmorrhages in the newly born due to syphilis are very rare. The symptoms of infantile syphilis in the order and frequency with which they occur, are as follows:

Marasmus. This is noticeable in the great majority of syphilitic infants and frequently dates from a few days after birth. There are two forms of wasting: one is that which accompanies any infantile illness, and which ceases when the symptoms of syphilis subside: the second is a progressive marasmus which is often the first symptom to appear, and which continues even after all the other symptoms have disappeared under mercurial treatment. It is independent of any digestive trouble, and while it sometimes yields to mercurials, more often progresses to a fatal termination. *Snuffles.* This symptom occurs almost always within the first three months, and is present in seventy per cent. of the cases. The condition varies from a slight stuffiness of the nose up to a profuse discharge of pus. Depression of the bridge of the nose and ozæna result in only a very small minority of the cases. Adenoids and simple catarrh are often mistaken for snuffles. *Skin Eruptions.* These generally appear soon after the snuffles and almost always within the first three months. The most characteristic eruptions may be grouped as follows: 1. Mascular, small reddish-brown ares, present on any part of the body, but particularly on the middle third of the face. 2. Erythematous, diffuse in distribution, and occurring especially about the perinæum and inside of the thigh. 3. Desquamative: either of the preceding may be associated with branny desquamation, but apart from these there is a profuse desquamation of the palms and soles which is very characteristic of congenital syphilis. 4. Fissures, usually radiating outwards from mucous surfaces—e. g., the mouth and anus. These occur early, and leave lifelong scars. 5. Bullous, the syphilitic pemphigus, which is present at birth. 6. Condylomatous; moist, warty, flat topped patches, situated in moist parts. 7. Skin affections exactly resembling such ordinary non-syphilitic lesions as eczema and erythema intertrigo. Following the characteristic abundant crop of hair already mentioned, there is sometimes a thinning of the hair. Onychia is also very characteristic of infantile syphilis, and is usually associated with some cutaneous lesion. *Enlargement of the Spleen.* When the spleen extends an inch below the costal margin, it has some value as confirmatory evidence. *Eye Affections.* Iritis or chorioiditis are present in fifteen per cent. of the cases. *Laryngitis:* this is one of the most frequent of early symptoms. *Epiphysitis:* present in eleven per cent. of the cases. *Orchitis:* in eight per cent. It differs from tuberculous disease in that the body of the testis is affected first and chiefly, whilst the epididymis is seldom appreciably involved. *Brain Affections.* Eight to nine per cent. of cases show idiocy, pachymeningitis with cortical sclerosis, hydrocephalus, and cerebral palsies. *Anæmia* of a profound degree is sometimes a result of infantile syphilis. *Parrot's Nodes and Craniotabes.* He does not think that either of these symptoms can be taken as evidence of syphilis. As to the contagiousness of inherited syphilis, he thoroughly agrees with Coutts, "that it is occasionally contagious is certain, but it is equally certain that the virulence of such contagion has been grossly and vastly overestimated. Parents should be warned of the danger, especially as long as skin lesions persist. In the treatment of infantile syphilis there is little choice of drugs; the only question is in what form should mercury be administered, in what dose, and for how long. He prefers gray powder. Intramuscular or intravenous injections are wholly unsuitable for infants. With epiphysitis or gummata iodides should be used.

The Fate of Antiseptic Mops Accidentally Left in the Abdominal Cavity.

Reise, in the *British Medical Journal.* reports two cases in which gauze mops had been accidentally retained in the abdominal cavity after laparotomy. In one of these cases the foreign body, which had made its way into the intestinal canal and

there caused obstruction, was successfully removed by enterotomy. In the second instance, in the course of a laparotomy for rupture in tubal gestation performed four years after ovariotomy, an aseptic mop was found enclosed in a cyst that had developed in the mesosigmoid. According to our present knowledge the retention of a soft foreign body in the abdominal cavity after laparotomy may be followed by one or other of these four results: peritonitis, penetration into the intestinal canal, discharge of the foreign body through an abscess formed in the abdominal wall or in the pouch of Douglas, and inclusion in a cyst. He says that penetration into the intestinal canal occurs quite as frequently as external elimination by an abscess. The passage of the foreign body into the intestinal canal may occur without suppuration, and its discharge by the anus need not give rise to any alarming symptoms. A foreign body such as an antiseptic compress or mop may, the author states be retained within the peritoneal cavity for many years. In cases of intestinal obstruction following the passage of such body into the intestinal canal, it is held to be better to have recourse at once to laparotomy than to attempt to dislodge the cause of the obstruction by purgatives. Several surgeons have had experience of the accidental retention of antiseptic appliances. In Neugebauer's practice a foreign body of this kind was left in the abdominal cavity in 10 of 1000 laparotomies, and the writer has had a similar experience in two out of 900 laparotomies.

Gynecological Importance of Prolapsed Kidney.

Dr. Augustin H. Goelet of New York, presented a paper with this title at the annual meeting of the New York State Medical Association, October 17–20, (Medical Record, October 22nd, 1904) in which he shows conclusively that prolapse of the kidney has an important bearing upon diseases of the female pelvic organs, because by pressure directly upon the ovarian vein, as it ascends along the spine, the circulation is obstructed and pelvic congestion is the result. Hence, it is instrumental in producing or maintaining such conditions as endometritis, uterine displacements, uterine hemorrhage, hemorrhages into the pelvis, ovaritis, irritability of the bladder and even cystitis, and these conditions are therefore oftentimes incurable until the kidney has been restored to its normal position by operation.

An erroneous idea of the gravity of the operation is often given to the patient by those who do not understand it. He contends that if he can do 197 consecutive nephropexis, in 47 cases fixing both kidneys at the same time, without a death, the operation has no mortality.

Goelet believes the essential object of the operation is to restore the kidney to its normal position, and unless this is done, the full benefit does not follow, and very often the patient is in worse condition than before.

Immunization of Cattle Against Tuberculosis.

Friedmann (Deut. med. Woch.,) reports on a series of experiments undertaken to investigate the possibility of using them as a means of immunizing cattle against the bacilli of Perlsucht. It was found that a single injection of the turtle bacilli produced a degree of immunization sufficient to protect an ox against a dose of Perlsucht bacilli fatal to an untreated animal, and that cattle suffering from Perlsucht are apparently cured by injections of turtle bacilli. He claims that this method of immunization possesses advantages over others now in use, in that the bacilli employed are perfectly harmless, and that a single injection produces a well-marked degree of immunity. The serum of animals, such as guinea-pigs and cattle, immunized in this way, is strongly protective, and when injected into other animals guards them against otherwise fatal doses of virulent bacilli.

Treatment of Cancer.

Routh (Br. Gyn. Jour.) discusses some of the newer methods of treating cancer and its apparent causes. He suggests more perfect drainage of our cities. The employment of oxygen freely in the body in various ways, so as to render the injurious effects of the organism inoperative. Experts are needed to prove how electricity, by shock or vibration, may insure the destruction of the organisms, and means must be devised to apply the crushing system by ice from liquid air or hydrogen through some effective apparatus. He mentions two cases of malignant diseases of the vagina treated successfully with hydrogen peroxide.

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The Treatment of Gonorrhoea in Married Life.

Asch (Monatsschr. f. G. u. G.) says that gonorrhœa never cures itself. In illustration he cites a vulvovagnitis in a child, in which he still found gonococci four years after the onset of the trouble.

Rest and abstinence from intercourse, therefore, while of the greatest help in the treatment, do not alone suffice to accomplish a cure. The absence of gonococci in the discharge is not in itself proof that the disease has been cured. The gonococci may still be present upon one or the other of the muccous membranes affected. This makes a cure in women so exceeeingly difficult.

The only rational way of handling this condition is to have both husband and wife simultaneously undergo treatment, until free of gonococci. If this is not done, or is not done thoroughly enough, there will be a reinfection, and all the ground gained will be lost again.

He advises a radical operation, if any at all and strongly advises against curettment in gonorrhœa.

Pyelonephritis and the Puerperal Condition.

Wallick (*British Gynecological Jour.*) answers the following question: What is the effect of a pyelonephritis upon a woman in the puerperal condition when the vulva is exposed several times a day to the infective influence of a purulent urine; and whether in case of an elevation of temperature it is possible to distinguish between a fever due to pyelonephritis and one due to puerperal infection?

From a number of collected observations the writer formulates the following conclusions: The recovery may be perfectly normal and apyretic, particularly if no fever has been present for some time before labor; but there may be pyrexia if the pyelonephritis had provoked any fever shortly before labor. This pyrexia, however, might be distinguished from the fever of puerperal infection by its presenting wider oscillations of daily temperature, sometimes reaching or even exceeding 2 deg., and by a morning remission to 37 deg. C. or lower. Moreover, the pulse would not exhibit an acceleration corresponding to the elevations of temperature; and the general condition of the patient outside the daily period of fever would be more satisfactory than in puerperal infection.

Prevention of Puerperal Infection in Private Practice.

Byers, in the *Lancet*, says the careful general examination of pregnant women is important, so that at an early date we may detect a flaw in any of the organs (heart, kidneys, lungs), the knowledge of which may lead to the adoption of a judicious prophylactic treatment and so maintain the patient's strength and health and resisting power.

A few weeks before the expected date of the confinement—especially in a primipara—a careful abdominal examination should be made, so that we may learn the presentation and position of the fetus, the amount of liquor amnii, and the presence or not of an abdominal tumor; and if there is the least suspicion of deformity the pelvic cavity should be measured.

The immediate repair of any lacerations of the pelvic floor following delivery is a most important point in the prevention of puerperal infection.

Such, in brief, are the suggestions which, if fully and fairly carried out, would soon make a marked change in obstetric practice and bring the results of private midwifery work more into line with the brilliant records now achieved in properly conducted maternities.

The Formation of an Artificial Vagina by Intestinal Transplantation.

Baldwin, in *Annals of Surgery*, says that the procedure advocated is that of making a new opening in the perineum and then bringing a loop of ileum or sigmoid down for a mucous membrane lining. This is to be done by "switching out" a section of gut which is left attached to its mesentery; the two ends of gut are to be closed blind, or one of them sewn around the cervix if a uterus be present. Then the convexity of the loop is to be drawn into the perineal opening, sewn there, and a vaginal outlet established. After it has healed in place the septum between the two limbs of the new vagina is to be obliterated by pressure forceps.

Turpentine in Typhoid Fever.

Moore, in the London Practitioner, states his belief in the efficacy of turpentine in the treatment of typhoid fever.

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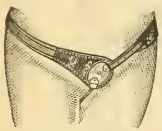

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Method of Demonstrating Tubercle Bacilli in Urine.

Trevithick (Scottish Medical and Surgical Journal) suggests the following technique: The lower part of the urine which has been resting in a conical glass is pipetted off and centrifugalized. The deposit left in the glass is then shaken up with distilled water, again centrifugalized, and the process repeated. From the final deposit films are made and stained in the usual way. By this method the demonstration of tubercle bacilli is rendered easier. The washing with distilled water is supposed to remove the urinary salts, which prevent the bacilli and even the pus cells from adhering to the slide or coverslip.

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A Case of Diabetes in a Child of Eleven Years.

Rist, in the Annales de Méd. et Chir. Inf., describes the case of a male child, with a history of excellent health, except for varicella at six months. Eight days before coming under observation the boy suffered an attack of indigestion due to an indiscretion of diet. From this day there was loss of appetite, unquenchable thirst, abnormally abundant urine with loss of flesh. The condition became rapidly worse with abdominal pain, vomiting, constipation, drowsiness and suppression of urine, followed by abolition of reflexes, unequal pupils, irregular respiration and coma. The urine withdrawn by catheter gave a typical reaction with Fehling's solution, and the child died twelve hours after entrance to the hospital. The results of autopsy were absolutely negative, there being no lesions in any organs. The meninges showed intense congestion. It is impossible to draw any conclusion as to the significance of the indigestion. In the absence of nervous and pancreatic lesions, one might think of an alimentary intoxication.

Sarcomata of the Vagina in Childhood.

Le Deuta, in La Presse Medicale, describes several instances reported by Veit, Brown, Strassman and others, and gives the following case in detail:—A little girl of three and one-half years with no antecedent history of importance with the exception that the maternal grandmother died at fifty-four of gastric carcinoma. At the age of three years the child had a fall, landing on its stomach. A month later, the mother noticed a small brown mass presenting at the vulva. The mass was glossy, spongy and friable with a slight bloody secretion. It was nonadherent to the vaginal wall. In the course of two months, there was absolute retention of urine due to mechanical pressure with pain dependent thereon. Examination of the vaginal curettings showed an extremely vascular soft fibroma, diagnosed as absolutely benign. Laparotomy was performed, and an enormous tumor mass was seen reaching from the pelvis to the umbilicus. The uterus, adnexa and upper part of the tumor was removed: the most accessible polypus growths were removed through an anterior vaginal incision. The upper portion was sutured and drained, the posterior vaginal wall remained intact, thus separating this cavity from that of the general peritoneum. Recurrence, however, seemed inevitable and, although no peritonitis developed, there was absorption of the infectious material, and the child died in three days, the immediate cause being pulmonary congestion. The gross appearance of the tumor mass showed enormous hypertrophy of the vagina, uterus and adnexa with cystic degeneration of the ovaries. Histologically, the vaginal tumor was essentially composed of developing sarcomatous tissue with some myxomatous degeneration. The fragments showed developing and anastomosing cells with some well-developed connective tissue.

Some Clinical Peculiarities of Malaria in Children.

Aguilar, in the Archiv. de Gine. Obstetr. y Pediatr., analyzes the clinical peculiarities of malaria in infancy and childhood, as compared to the manifestations of this disease in adults. It may beasserted that, in virtue of the special resistance and capacity for raaction of the child's organism against the parasite of malaria, the infection with this agent in children does not take the same form as in adults. The variability of the symptoms of malaria in children is such, that we cannot expect the occurrence of those classical features of malaria which render the diagnosis easy in adults. Instead of the stages of chills, fever and sweating, we have in the child, either a complete absence of chills or the substitution of convulsion; the fever is usually of longer duration in children than in adults, and the sweating may be completely absent, or is usually very slight. The variations in the periodicity of the attacks in children are very marked. It

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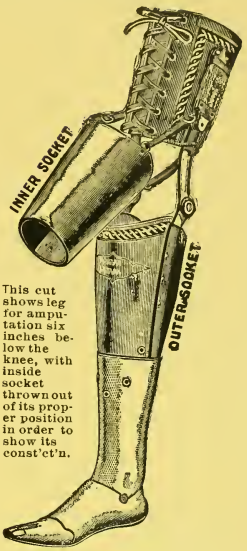

This cut shows leg for amputation six inches below the knee, with inside socket thrown out of its proper position in order to show its const'ct'n.

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is common to see one attack of fever at noon, another in the early morning of the next day, a third in the evening, during the night, etc. This is in great contrast to the exact recurrence of the malarial attack at the same hour in adults. As regards the type of fever in children, the remittent or subcontinuous type is more common than the intermittent, and there is a type which does not correspond to any form, known as the "ataxic type or Ferreira." In this type the fever, which lasts for a considerable time, does not show any definite form, but occurs in the shape of exacerbations which are repeated at different hours. Moncorvo has termed this form a "thermic arhythmia." Another form is the acute apyretic type which is characterized usually by catarrhal symptoms of the intestines, a coated tongue, loss of appetite, constipation, diarrhea, meteorism, malaise, languor, etc. Some children complain of erratic pains in the lower limbs, the arms, and the abdomen. The abnormal larvated and pernicious forms present a number of clinical types, but in these the increased size of the liver and the spleen are of diagnostic value.

On Black Urine.

A. E. Garrod, in the London Practitioner, says: The earliest medical writers described black urines, which were commonly attributed to bile pigment. Melanuria was first described by Fawdington in 1827. Lusitanus in 1649 gave an instance of the lifelong secretion of black urine by a man who enjoyed perfect health.

Jaundice may give rise to a urine that is nearly black. In some rare cases there may be a fistulous tract from the gall-passages to the urinary tract. Blood may give rise to the term black urine, but it is only an exaggeration of the smoky tint found in urines that contain blood. Hemoglobin if present in large amount gives very dark color to the urine, hence the term "blackwater fever." Hematoporphyrinuria usually gives the urine a port-wine color, but every degree of tint is met with between a tawny pink and black.

Melanuria associated with melanotic sarcoma is a rare condition and only occurs when the pigment is extensively distributed through the internal organs, particularly the liver.

Alkaptonuria has a normal colored urine when it is first passed, but on standing it darkens from the surface downward, passing through various shades of brown to black. It deeply stains fabrics. It is a congenital lifelong affection and one which appears to be harmless. It frequently occurs as a family disorder.

Ochronosis was first observed by Virchow, and was a term applied to blackened cartilages. In these cases the urine has been observed to blacken on standing, though it gives none of the ordinary reactions of alkapton.

Indicanuria is a condition often mistaken for melanuria. Urines rich in this substance often have a brown color which is intensified on standing. Such urines blacken when warmed with nitric acid, but there is no such immediate blackening in the cold as with melania. They do not blacken with ferric chloride. The presence of indican is confirmed by heating with hydrochloric acid to which a drop of nitric acid has been added. This reaction may be obtained in any morbid process which leads to the abundant excretion of indican, such as intestinal obstruction, excessive bacterial activity in the intestine, or putrefactive changes in collections of pus.

In cases of phthisis a urine may be excreted which will turn black after long exposure so the air.

Certain cases may excrete a dark urine which do not fall under any of the above mentioned classes. Probably they are the first recorded cases of what will in time come to be rare but well defined pathological conditions.

Articles of diet and drugs often give a dark or almost black urine. The greenish-brown color of carboluria may turn to a black on standing. Salol, creosote, and the salicylates may cause a darkening of the urine which may approach blackness.

The Value of Antitoxin in the Prophylaxis of Diphtheria.

Zuppinger, in the Wiener Klin. Woch., gives the result of one thousand prophylactic injections of antitoxin. When a child is brought to the Kronprinz Rudolf-Kinderspital suffering from diphtheria, the number of brothers and sisters under fourteen years of age is ascertained and a physician is immediately sent to immunize all exposed children. The dose usually administered is 200 units except in cases exposed to a virulent infection when as high as 1,000 is given.

Among these thousand children, eighteen or 1.8 per cent. developed diphtheria. Of these, 4 came down with the disease on the first day, 4 on the second day and 3 on the third day after infection. Excluding these cases which probably had the disease when injected, it would reduce the number to 7 or .7 of 1 per cent. In these immunized cases the disease ran a very mild course and might be termed abortive cases.

Among the exposed children not receiving axtitoxin, probably to the number of 400, forty-five came down with the disease and five died in spite of serum treatment.

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Dr. Southgate Leigh, Surgeon in Charge, **Dr. Stanley H. Graves,** Associate,
Miss M. A. Newton, Superintendent.

Diphtheritic antitoxin is now given to all children suffering from measles and scarlet fever, with a marked reduction in the mortality. He believes that the prophylactic effect of the antitoxin lasts for three to four weeks. Before the days of antitoxin in his hospital the mortality was 39 per cent. and this has been reduced under the serum treatment to 12 per cent. He has collected some interesting statistics from work done along this line in other countries. In Italy, out of 14,967 prophylactic injections, 1.8 per cent. developed the disease. In France. out of 11,300, 2.4 per cent. In Bosnia, 1.7 per cent.; in Austria-Hungary, 1.5 per cent.; in Germany, 4 per cent.; Norway, 2 per cent.; Holland, 1.4 per cent.; Russia, 2.1 per cent., and England and the United States, 0.9 per cent. The author recommends that laws should be framed making prophylactic injection obligatory.

The Serum Treatment of Puerperal Septicemia.

Bumm, in the London Lancet, says that there is a difficulty in making a proper estimate of the action of the serum, and that recoveries might be attributed to nature as well as to the serum treatment. The writer has used Marmorek's, Menzer's, and Aronson's serum, the results being as follows:

Streptococci puerperal peritonitis: Five cases were treated by injections of great quantities of serum without success.

Genuine septicemia: In two cases the serum had not the least effect; one case in which great masses of streptococci were present in the blood recovered after three injections, while two cases complicated by endocarditis were not influenced.

Pyemia: No effect was produced by the serum.

Streptococci endometritis: Of thirty-five died, nine recovered without a manifest action of the serum, and in twenty-one the injection produced an immediate decrease of the temperature, together with an improvement in the patient's general state.

Although the advantages of serum treatment are very doubtful it is at least harmless, and he recommends that it should be tried in severe cases. In recent cases without general infection it should always be used. Prophylactic injections should also be given with a view to prevent cases from becoming septic.

Liver Abscess Followed by Abscess of Lung and Empyema.

Cantilie, in the British Medical Journal, reports a case of recovery from liver abscess which was followed by an abscess of the upper lobe of the right lung accompanied by empyema. In conclusion the writer says that abscess in the lower lobe of the right lung is a very common concomitant of, or sequence to, liver abscess. In the present case the abscess was in the upper right lobe, between which and the old liver abscess there was no continuity of tissue.

The abscess in the lung was evidently embolic in origin, the embolus traveling by way of the hepatic vein, heaft, and pulmonary artery to the upper lobe of the right lung.

He reported a case of liver abscess, followed three weeks after operation by an embolism in the ophthalmic vein of the right eye, which led to loss of vision and necessitated removal of the eyeball.

Had the seat of mischief been accurately ascertainable in the present case to have been in the upper lobe, and seeing that the lower lobe of the right lung was also collapsed, the proper surgical procedure would have been ligature of the root of the lung and removal of the whole organ.

Non-Gonorrhoeal Urethritis.

Ludwig Waelsch (Archiv. fur Dermatol. mod. Lyph.) referring to Barlow's postulates, the writer believes that all his cases have fulfilled the required condition, namely, that the patients had never had gonorrhœa, that no gonococci were ever found in the urethral secretion even after careful and repeated examination, that no sequelæ or remains of a previous gonorrhœa could be discovered, such as stricture or nodules in the epididymis, that syphilis urethral chancroid and tuberculosis of the genito-urinary tract could be positively excluded. No specific organisms were isolated.

A review of the histories of his cases shows a number of causes of the urethritis. In some there was an infection, non-specific; in others the source of irritation could be traced to an excess of salts in the urine, or to the ingestion of irritating drugs or the external application of irritating solutions, such as protargol used as a prophylactic against venereal diseases. In other cases the urethritis was apparently due to excessive exercise, particularly riding. The cases were characterized by a long period of incubation, in those instances where an infection was apparently the cause. The further course of the disease was slow, the subjective and objective symptoms were of a mild character, gonococci were absent. The cases ran a long course, and offered a rather unfavorable prognosis as to cure.

The treatment consisted principally in the removal of the cause where one could be discovered.

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A True Hepatic Stimulant and Eliminant

RESTORES functional activity of the Liver by increasing the secretion of the Hepatic Cells and does not irritate the duodenum to the possible tumefaction and subsequent obstruction of the bile ducts, as do calomel, podophyllin and effervescing salines.

RESTORES and preserves normal alkalinity of the blood.

RESTORES full normal Renal Function.

IS A SOLVENT of Uric Acid and promotes its elimination.

Samples and Literature to Physicians on Request.

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Dr. G. M. SULLIVAN, of Lewistown, Mo., writes: "I am more than pleased with SULPHO-LYTHIN. In an experience of 35 years I have not found its equal as a Hepatic Stimulant and Uric Acid Solvent and Eliminant."

Pernicious Vomiting.

Robert Jardine, in the Jour. Obst. and Gyn., Br. Emp., is convinced that the cause is a toxic one, and the poison acts through the nervous system. The cause lies in the uterus, as the excessive sickness ceases as soon as the uterus has been cleared out. In the treatment medical means should have a fair trial. Rectal feeding is of great use when everything is rejected by the stomach. When this condition exists all feeding by mouth should be stopped for ten days. The thirst is to be relieved by high rectal or subcutaneous injections of saline solution. If after ten days the stomach will not retain food, we must consider the advisability of terminating pregnancy. To delay too long is only to court disaster. He reports three cases of pernicious vomiting in which pregnancy had to be terminated. In all the cases vomiting ceased after delivery. Two cases recovered, but the third died in a few days from a septic pneumonia, the result of a septic condition of the mouth.

Notwithstanding the large number of Hypophosphites on the market, it is quite difficult to obtain a uniform and reliable Syrup. "Robinson's" is a highly elegant preparation, and possesses an advantage over some others, in that it holds the various salts, including Iron, Quinine, and Strychnine, etc., in PERFECT SOLUTION, and is not liable to the formation of fungous growths.

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A New Pathogenic Bacterium Causing Basal Meningitis in Infants.

W. D'Este Emery, in The London Medical Lancet, reports three cases in which an organism, quite unlike any known pathogenic bacterium, was isolated in cultures once during life from the cerebrospinal fluid and twice after death from the meningeal exudate and also from the pus from the middle ear. The author says he will give a fuller account for a future occasion. It was seen in films from the lumbar puncture fluid, from the meningeal lymph or pus, and from the tympanic pus in all cases. It seems fairly certain that it must be regarded as being the cause of the disease in the first two cases and as an important secondary infection in the third. The association of pus in the middle ear in all three cases, and the presence therein of the same organism as was found in the brain, is of some interest in connection with the etiology of the disease and of meningitis in general. It is, of course, impossible to say whether the brain was infected from the ear or *vice versa*. A point in favor of the view that the ear became effected secondarily is the fact that in the first case no pain in the ear was noted until the day before death, whilst in the second case there was a discharge from the nose, suggesting another possible source of infection. It is very unfortunate that this discharge was not examined bacteriologically. In this case, too, it is noteworthy that there was no notice of any symptoms pointing to pain in the ear, suggesting that the inflammation may have come on whilst the patient was semi-comatose; further, the ears were examined on admission and the tympanic membranes were found to be normal. On the other hand, in the few cases of septic meningitis following injury in which he has had an opportunity to examine the ears there has been no suppuration, suggesting that purulent inflammation does not easily travel in that direction.

Treatment of Multiple Warts.

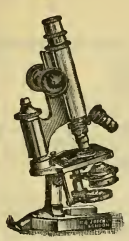
Arthur Hall (British Journal of Dermatology) says: It is a well known fact, although some are highly incredulous, that the magnesium salts, through internal administration, have a direct and specific influence in some way upon multiple warts. After the report of a case thus beneficially influenced, the author believes that a possible explanation may be that, granted the disease is due to a micro-organism, it is one of poor resistance and may be destroyed by a very slight alteration of the soil, thus an increase of magnesium salts in the tissue juices, a small quantity of arsenic, thyroiodine, etc., may be sufficient to retard the further growth of the organism, with consequent shrinking of its new formation and disappearance of the disease.

Surgical or Traumatic Rheumatism, with a Note on Corrigan's Button.

J. Weir, in the Glasgow Medical Journal, mentions what might be termed rheumatoid affections subsequent to an injury. The author says that it is not true rheumatism and is intractable to rheumatic remedies. The trouble may arise from either slight or severe injuries. After fractures, dislocations, and sprains, the parts are often kept too long at rest and a predisposition to overstrain is engendered, developing a chronic periarthritis after efforts to bring them into unaccustomed play. Earlier removal of splints would diminish the number of these cases. The parts should be freed from support as soon as the pain has abated. The condition is common in certain occupations. The wrists of oarsmen, dressmakers, and pianists, the ankles of commercial travelers, servants, and hospital nurses are often affected. Flat-foot predisposes to it. He reports a case in a dressmaker. Freedom from pain during passive movement proved that it was not the joint but the periarticular structures which were involved and there was almost immediate relief from the blistering with Corrigan's button. When the joint is not thickly covered with muscles or when their lesion is periarticular, extensive and deep cauterization is not usually required and anesthesia is unnecessary. The cautery should be heated sufficiently to destroy only the superficial layer of skin.

Treatment of Multiple Warts by the Internal Use of Magnesium Salts.

Hall (British Journal of Dermatology) states that it is a well known fact, although some are highly incredulous, that the magnesium salts through internal administration have a direct and specific influence in some way upon multiple warts. After the report of a case thus beneficially influenced, the author believes that a possible explanation may be that, granted the disease is due to a microorganism, it is one of poor resistance and may be destroyed by a very slight alteration of the soil; thus an increase of magnesium salts in the tissue juices, a small quantity of arsenic, thyroiodine, etc., may be sufficient to retard the further growth of the organism, with consequent shrinking of its new formation and disappearance of the disease. Such a view is consistent with what we observe in other parasitic diseases.



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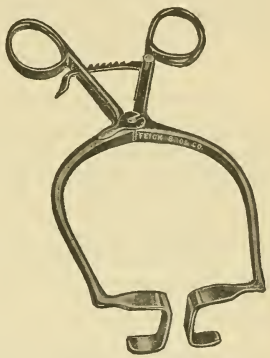

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Miscellaneous.

In Memoriam.

Whereas, it has pleased our Heavenly Father to take from our midst, on September 25, 1904, our friend and esteemed brother physician, Dr. W. D. Young, we bow with saddened hearts in humble submission to an ever allwise, though mysterious Providence, and pass the following resolutions of respect to his memory; therefore be it,

Resolved 1st, That we, the Durham Academy of Medicine, have lost a loyal member, the State an honorable citizen, and the community a faithful and efficient physician.

Resolved 2nd, That we extend to the bereaved family our heartfelt sympathy in this sad hour of affliction, devoutly praying that in this, their sore bereavement, they may lean with perfect trust on the strong arm of Him who is our Great Physician.

Resolved 3rd, That a copy of these resolutions be sent to the bereaved family, be published in our city papers, a copy be sent to the Charlotte and Carolina Medical Journals for publication and a copy be spread on a page of our minutes.

GEO. H. ROSS, M. D.
A. G. CARR, M. D.
J. M. O'KELLY, M. D.

Nascent Glycerophosphates.

Professor Albert Robin, the greatest living author on modern therapeutics, has recently laid great stress on the superiority of the therapeutic agents when administered in the nascent state and has, in a communication to the French Academy, given excellent reasons based on clinical experience, showing the activity of many substances to be much greater at the moment of birth, at such times, maximum effects are produced with minimum doses, giving numerous examples in support of his claims.

A number of products can thus be administered with the maximum of activity and few are more remarkable in their effects than the glycerophosphates. Until now, the acid glycerophosphates introduced by Huxley of London, in the form af a syrup (more strictly a glycerole) has been the only practical form of phosphatic food medication which has really yielded the results claimed for the glycerophosphates, but recently the same chemist has found an ingenious method of producing a dry salt which passes into the state of nascent glycerophosphates of lime, soda, potash, iron, manganese, etc., on coming into contact with the aqueous liquids.

The tablet form of medication has its disadvantages, but in this particular instance, is a most convenient, and in fact almost the only practical form in which the nascent glycerophosphates can be given.

By an ingenious mechanical contrivance, the glycerophosphates in this dry form takes birth only as each successive layer of the compressed tablet comes in contact with the liquids of the stomach and as the already formed glycerophosphates enter into solution.

These glycerophosphates are usually prescribed in 4 grain tablets, each producing by the chemical reaction of H. O. on the salts, the exact physiological proportions of pure glycerophosphates of lime, soda, potash, iron, manganese, laid down by Bardet of Paris, with 1-250 of a grain of strychnine, which addition has been found in neurasthenic conditions to stimulate the spinal cord.

It is now admitted that commercial glycerophosphates in solution are almost inert. Solutions, syrups, and elexirs of the glycerophosphates of soda and potash are reduced to ordinary inert phosphates after a very short time, but as both the phosphates and glycerophosphates are soluble in liquids, the fraud passes unnoticed and only sus-

Vapo-Cresolene.

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℞ Vaporized Cresolene at night.
Plenty of Fresh Air during the day.
Much Nourishing Food.

THIS TREATMENT immediately palliates the attendant paroxysms; avoids Internal medication; greatly lessens the chance of complications and does not disturb the patient.

Bacteriological tests by C. J. Bartlett, M. D., of the Pathological Department of Yale University, show that vaporized Cresoline kills the germ of diphtheria. Its action is curative and prophylactic and hastens convalescence in this disease.

Cresolene is germicidal and sedative in its action on the mucous membrane. The air rendered antiseptic enters where liquid from sprays or nebulizers cannot. A 1% solution of Cresolene in water kills the germs of diphtheria, typhoid fever and pus in one minute.

The diseases in which the properties of Vapo-Cresolene have been especially utilized are whooping cough, croup, bronchitis, influenza, hay-fever, diphtheria, the bronchial complications incident to measles and scarlet fever, and in allaying the dyspnœa and irritating cough in pneumonia.

Literature on application.

We allow 25% discount from retail prices to physicians, and will prepay express charges on first order for one Vaporizer complete.

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In convalesce from typhoid, when the patient's strength is exhausted, his tissues wasted, and a relapse feared if the digestive organs be not spared all unnecessary strain, the physician is often at a loss as to how to feed the patient.

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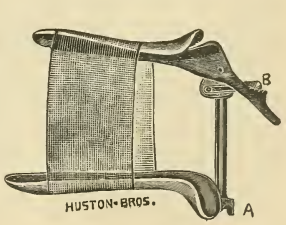

pected by the wants of effects on cases treated with them.

Even the formula for compound syrup of the glycerophosphates, which figures in the Formulary of the British Pharmaceutical Conference, (admittedly inspired by the Huxley formula which was published two years in advance), is only half the strength of the original preparation, and yet an analysis will show that after keeping one month, there remains but a feeble percentage of true glycerophosphates and that the reduction to the state of basis phosphates (with exception of the lime salt which is more resistant shan those of soda, potash, etc.) and continues indifinitely.

The glycerate of acid glycerophosphates or so-called Huxley's syrup is the type of the liquid preparations which are permanent equal to the nascent glycerophosphates.—Dr. Geo. W. Tobias, New York.

Papine, Its Broad Field as an Anodyne.

In the administration of opiates and anodynes or soporifics, it is eminently desirable on the part of the medical profession, to select a remedial agent of that character which is not only prompt and efficient in its action, but one which is safe, comparatively agreeable to take, and devoid of the tenacious principle, which is likely to establish drug habit in the patient, or a necessity for its continuance, and thus release the system from its enthrallment, which so often occurs from the use of morphine, opium, codeine, heroine or any number of opiates, soporifics or hypnotics. In papine we find all the cardinal principles and anodyne factors, without the dangers, which characterize the opiates in general use. It seems to fulfill all the requiremeuts of an anodyne over such a large field of maladies that it at once presents itself as a safe, reliable and efficient remedy, that not only renders speedy results, but may be administered without fear of toxic sequels, or embarrassing results under intelligent direction. In many of the painful, tedious, distressing and sudden attacks, particularly those manifesting severe symptoms at night, when relief is promptly to be desired, this remedy holds sway over many ailments. In an extensive general practice, particularly during the recent past severe winter, I have found no remedy so prompt to relieve distressing symptoms as papine. In acute bronchial attacks with dyspnoea, tenacious mucous, alternate fever and chill conditions with the most severe suffocating respiration, I have repeatedly in the administration of papine, secured a most palpable relief in a very few minutes, and by following it up in small doses, been gratified beyond expression, to find the attack to yield, kindly and gracefully even in its incubation. Also with bronchial or winter cough, accompanied with pleuritic pains, the same result is achieved widening the intervals between the doses, as the morbid symptoms subside. In sudden attacks of influenza, coryza, pharyngitis, laryngeal irritation I have found this a most admirable remedy. For insomnia and morbid vigilance, whether from mental anxiety, worryment, excessive fatigue or from the inauguration of some attack of the physical, nervous or circulatory system, papine is a most admirable remedy, and furthermore after fulfilling its mission, there remains no exaction, which demands its continuance after the malady has yielded. In whooping cough with children it certainly may be relied upon, as modifying and ameliorating the distressing paroxyism of cough, if not greatly shortening the length, intensity and persistency of the attack. One of the meritorious factors in the use of the remedy with children is the requirement of exceedingly small doses and the ready manner in which the young contingency take it without a murmur or objection, because of its not being offensive to the taste. In some recent cases of a dysenteric nature with copious bloody flux, constant, painful, and frequent discharges, extreme sensitiveness of the abnormal vicus, accompanied with fever and serious indications, I have found all these distressing symptoms to yield as kindly and satisfactorily as from any treatment, or perhaps more so than from any of the old time medicines regarded as "sheet anchors" in this obstinate disease. Intelligibly and persistently followed up, the practitioner will find that in his reliance on papine his faith is well founded. Ultimately, in the multitude of ills, painful and distressing, deranging the nervous system and destroying rest—in short, in any and all the afflictions where a safe, reliable and invaluable anodyne is required, papine fills a void long needed, and is a welcome remedy in the hands of the general practitioner.—Walter M. Fleming, M. D., Qualified Examiner in Insanity and Nervous Diseases, in Superior Court, City of New York; Member New York County Medical Society and Medico-Legal Society, New York City.

Every Physician Knows.

In the North American Practitioner, under the head of "Intestinal Antisepsis," reported by Dr. Pettingill of New York City, we find some excellent experiences and from which the following is selected:

"Every physician knows full well the advantages to be derived from the use of antikamnia in very many diseases, but a number of them are still lacking a knowledge of the fact that antikamnia in combination with various remedies, has a peculiarly happy effect; particuliarly is this the case when combined with salol. Salol is a most valuable remedy in many affections; and its usefulness seems to be enhanced by combining it with antikamnia. The rheumatoid conditions so often seen in various manifestations are wonderfully relieved by the use of this combination. After fevers, inflammations, etc., there frequently remain various painful and annoying conditions which may continue, namely: the severe headaches which occur after meningitis, a 'stitch in the side' following pleurisy, the precordial pain of pericarditis and the painful stiffness of the joints which remain after a rheumatic attack—all these conditions are relieved by this combination called 'Antikamnia and Salol Tablets' containing 2 1-2 grs., each of antikamnia and of salol and the dose of which is one or two every two or three hours. They are also recommended highly in the treatment of cases of both acute and chronic cystitis. The pain and burning is relieved to a marked degree. Salol makes the uric acid and clears it up. This remedy is a reliable one in the treatment of diarrhoea, entero colitis, dysentery, etc. In dysentery, where there are bloody, slimy discharges, with tormina and tenesmus, a good dose of sulphate of magnesia, followed by two antikamnia and salol tablets every three hours, will give results that are gratifying."

Acetozone in Typhoid Fever.

I present, herewith, a report of a severe case of typhoid fever that came under my care, and that demonstrates the excellent results that may be obtained by the eliminative and antiseptic treatment.

On the morning of August 24, 1904, I was called to see Mr. S., 22 pears of age, in whose case I observed the usual characteristic symptoms of typhoid fever. Upon examination I found that the patient had a temperature of 104.5 deg. F.; his pulse-rate was 114; his abdomen was tympanitic and tender on pressure, and he complained of great exhaustion, headache, diarrnoea, pain in the back of the neck and in the calves of the legs, and chills running up and down the spine. I observed, also, that he had a dry and irritating cough and was extremely nervous.

During the early stages of the case, delirium,

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An antiseptic detergent for use in the antiseptic treatment of diseases of the skin.

Listerine "Dermatic" Soap contains the essential antiseptic constituents of eucalyptus (1%), mentha, gaultheria and thyme (each 1-2%), which enter into the composition of the well-known antiseptic preparation Listerine, while the quality of excellence of the soap-stock employed as the vehicle for this medication, will be readily apparent when used upon the most delicate skin, and upon the scalp. Listerine "Dermatic" Soap contains no animal fats, and none but the very best vegetable oils; after its manufacture, and before it is "milled" and pressed into cakes a high percentage of an emollient oil is incorporated with the soap, and the smooth, elastic condition of the skin secured by using Listerine "Dermatic" Soap is largely due to the presence of this ingredient. Unusual care is exercised in the preparation of Listerine "Dermatic" Soap, and as the antiseptic constituents of Listerine are added to the soap after it has received its surplus of unsaponified emollient oil, they retain their peculiar antiseptic virtues and fragrance.

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carphology and muscular tremor were very marked. On the morning of the ninth day the temperature began to decline and the patient addressed me, saying: "I know where I am, for the first time, doctor: I am at home."

Regarding the treatment I should say that I gave heroin for the cough, and one of the Woodbridge antiseptic tablets every half-hour during the day, for the first three or four days; then every hour, until the temperature began to decline. To produce quiet sleep Chloretone was given, and whenever the temperature rose above 102 deg. the partial wet pack was applied. This consisted merely of a folded sheet which reached from the axilla to the hips and was kept moist with a sponge.

A glassful of Acetozone solution, 15 grains to the quart, was given regularly every two hours until the temperature reached the normal. I never permitted the patient to be disturbed at night. If he awoke, he was given a glassful of the Acetozone solution and some nourishment. I also limited the number of stools to four or five a day. The patient made an uneventful recovery. At the end of the fourteenth day his fever had gone and his tongue was perfectly clean. With the exception of great physical weakness and a ravenous appetite he appeared to be himself again.—M. McColl, M. D., Detroit, Mich.

An Old Remedy Combined With a Newer One.

The Massachusetts Medical Journal recently published the following, which will no doubt be interesting to our readers:

"We believe that members of the medical profession should familiarize themselves with the combination tablet of antikamnia and heroin. The first of these, antikamnia, years ago, established a prominent place for itself as a most reliable antipyretic, anti-neuralgic, and general pain reliever, while heroin is, by all odds, the most efficient of recent additions to our list of remedies. The advantages of this combination are fully illustrated by a report of cases submitted to us by Dr. Uriel S. Boone, Professor of Surgery and Pharmacology, College of Physicians and Surgeons, St. Louis. We reprint three of said cases, as each has some particular feature which successfully called into use in a most beneficial manner, the synergetic action of these two drugs.

"Case I. J. P. Athlete. Suffering from an acute cold. On examination found temperature 101 deg. with a cough and bronchial rales. Patient complained of pain induced by constant coughing. Prescribed antikamnia and heroin tablets, one every four hours. After taking six tablets, the cough was entirely relieved. Patient continued taking one tablet three times daily for three days, when he ceased taking them and there has been no return of the cough or pain.

"Case II. Ed. H. Age 30. Family history—hereditary consumption. Hemorrhage from lungs eighteen months ago. His physician had me examine sputum; found tubercle bacilli. After prescribing various remedies with very little improvement, I placed him on antikamnia and heroin tablets, prescribing one tablet three times a day and one on retiring. He has since thanked me for saving him many sleepless nights and while I am aware he never can be cured, relief has been to him a great pleasure and one which he has not been able to get heretofore.

"Case III. Wm. S. Aged 28. Lost 20 pounds in last 30 days. Consulted me July 9th. I thought he most certainly would fall victim to tuberculosis. Evening temperature 101 deg. with night-sweats and a very troublesome cough with lancinating pains. Prescribed 1-100 gr. atropine to relieve the excessive night-sweats and one antikamnia and heroin tablet every four hours, with the result that he has entirely recovered and is now at work as usual.

"Neither in these, nor in any other of my cases, were any untoward after-effects evidenced, thus showing a new and distinctive synergetic action and one which cannot help being beneficial."

Why I Give Preference to Buffalo Lithia Over all Other Mineral Waters.

While I was a student in Bellevue Hospital Medical College some fifteen years ago, such frequent reference was made to Buffalo Lithia Water by the teachers and lecturers in the various departments of that institution; that when I began the practice of medicine later on, I regarded that water as one of our most valuable therapeutic agents. And many years of active practice have only served to confirm this high opinion of the many virtues and make its place more permanent in my medical armamentorium.

In the earlier years of my practice many old "chronics" fell to my lot as in the experience of every beginner. Many of these cases were the victims of chronic, articular, and muscular rheumatism and gout. Of course, they "had been the rounds of the doctors" who had put them through the usual course of salicylates, iodides, etc., with indifferent results.

From the very beginning I put these cases on Buffalo Lithia Water, instructing them to drink it freely day and night, "as much as they could hold." Some of them drank a full half gallon in every twenty-four hours. The only other treatment was an occasional laxative with specific directions as to diet and exercise. As the specific action of this water is a little bit slow at the beginning of its use, I had considerable difficulty in keeping some of my cases "up to their drink." The results in this class of ailments were all that could be desired, and I soon found my waiting room filled with a most desirable class of patients.

The excellent effects of Buffalo Lithia Water in rheumatism and gouty conditions seem to be due to its diluent and eliminating properties. It seems not only to eliminate from the system all tracts of uric and lactic acids, but it also prevents the formation of these substances by "beginning at the Beginning," and correcting all errors, of digestion and assimilation. In fact, its action evidently extends throughout the alimentary tract as well as to the liver, kidneys and skin.

Its decided action on the stomach and its secretions, as is evidenced by its excellent effects in gastro-intestinal dyspepsia, should secure for this water a high place in the estimation of any intelligent practitioner of preventive medicine. It neutralizes excessive acid secretions before and during the taking of food, and in the various stages of digestion, thereby rendering the latter physiological process easy of accomplishment. It also undoubtedly stimulates the secretions in the alimentary tract immediately below the stomach, thereby augmenting intestinal digestion and assimilation.

By the employment of no other therapeutic agent have I been able to secure such permanent and lasting benefits in renal, hepatic and urinary calculi, as by the liberal use of Buffalo Lithia Water. These calculi seem to become porous, break down or disintegrate and pass out through their normal exits under the action and influence of this water.

Indeed I have had many cases of urinary calculi, where it seemed nothing short of the knife promised relief, yield promptly to this water and pass via the urethra in the form of a fine sand which could be detected only by a most careful examination. In these cases the irritation and inflammation due to the presence of calculi in the bladder rapidly subside and leave the patient wholly comfortable and

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FOR PNEUMONIA, PLEURISY OR BRONCHITIS, PRIMARY OR SECONDARY TO LA GRIPPE OR ANY OTHER DISEASE,

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1.—Antiphlogistine is far more efficient than a poultice or any other external application.

2.—Antiphlogistine draws the blood to the surface—bleeds but saves the blood.

3.—Antiphlogistine, by reflex action, contracts the pulmonary vessels, thus depleting the lungs into the dilated superficial capillaries.

4.—Antiphlogistine's anodyne effects enable it to allay pain.

5.—Antiphlogistine relaxes the muscular and nervous systems thereby tending to induce sleep.

6.—Antiphlogistine works persistently and continuously for 24 hours or longer.

7.—Antiphlogistine is neat and clean.

8.—Antiphlogistine is easily applied and stays exactly where it is put.

9.—Antiphlogistine comes off nicely at the proper time, leaving the parts comparatively clean.

10.—Antiphlogistine can do no harm and is certain to do good.

It is Only a Question of Properly Applying.

Directions for Applying In Pneumonia.—Prepare the patient in a warm room Lay him on his side and spread Antiphlogistine thick and as hot as can be comfortably borne over one-half the thoracic walls. Cover with a good, warm, cotton-lined cheese-cloth jacket. Roll the patient over on the dressed side and complete the application. Then stitch the front of the jacket. Prepare everything beforehand and work as rapidly as possible. The dressing should be renewed when it can be easily peeled off, generally in about 24 hours.

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able to enjoy a much-needed and most refreshing sleep.

Equally satisfactory results are also secured by the free ese of this water in the most violent attacks of kidney colic. I always urge my patient to drink freely of the water, as hot as he can take it, in the earliest stage of attack; the kidneys are quickly flushed, the parts are gently relaxed and the calculus is soon forced from its lodgement in the ureter and carried into the bladder where it is rapidly disintegrated and soon voided.

In catarrhal conditions of the bladder, whether due to calculi, gonorrhoeal or catheter infection, or other causes, I have found Buffalo Lithia Water an indispensible remedy; in fact, I give it the preference over all other therapeutic agents, and it never fails me. It quickly relieves the distressing symptoms, such as irritability and tenesmus, and enables the organ to throw off and expel any pus, calculi or other detritus which may be present and responsible for the painful disturbance.

In Bright's Disease it seems to give relief by its gentle but positive action on the kidneys, promoting a flow of urine and carrying off dropsical effusions. It diminishes the quantity of albumin and the number of granular and hyaline casts and gives tone and energy to the kidneys, thus affording positive relief to the patient. And while I am not prepared to state positively that it will cure this disease, I am satisfied that it would in many cases; if administered in its early stages, arrest it entirely and prolong the life of the patient for many years.

In the albuminuria of pregnancy I have used Buffalo Lithia Water with remarkably good effect. It is my habit to give the water freely during the last half of the gestation period and thus ward off albuminuria, but if I am asked to take charge of a case in, say the seventh or the eighth month and find albuminuria present I proceed to administer the water in liberal quantities and keep it up until every trace of albumen has disappeared. In this way I always avoid puerperal eclampsia and bring my patient through a safe and easy delivery. Under no other conditions in the practice of medicine is it more important to resort to preventive measures and agencies than during the period of gestation and confinement, hence I would urge my professional brethren to see to it that Buffalo Lithia Water is kept in the home of every pregnant woman and freely used by her during this important period. Not only will it insure her against puerperal eclampsia, but it will also prevent the nausea and vomiting of pregnancy and many of the smaller ills peculiar to that interesting period.

The extraordinary therapeutic and eliminative value of Buffalo Lithia Water in typhoid fever has long been appreciated by the medical profession in this country. I am not prepared to say whether the water exerts a germicidal influence in this disease, but we do know that it soothes the inflamed glands and holds the temperature in check while the process of repair is facilitated throughout the length of the small intestine. It also allays thirst and stimulates the kidneys, skin, and other excretories, thereby ridding the system of the many waste elements peculiar to this disease. I always allow my typhoid fever patients to drink this water ad libitum.

In the earlier years of my practice I learned the value of Buffalo Lithia Water in pneumonia, having been taught to administer it, with fresh milk, for the purpose of nourishing and sustaining the strength of my patients throughout the entire course of this distressing and trying malady. It seems to assuage the thirst and control the temperature, as in typhoid. I find that the good effects obtained by a liberal use of this water, in tne various conditions which I have attempted to describe, are permanent and lasting.—Valdemar Sillo, M.D., Ph.G., in Mass. Medical Journal.

406 W. 57th St., New York.

Various preparations of Cod Liver Oil have appeared in the market during the past ten years, but for palatability and efficiency none of them has surpassed Hagee's Cordial of Cod Liver Oil Comp, This preparation has become a standard with many doctors all over the country, and the results already achieved are most satisfactory. The freedom from grease and the fishy odor makes it peculiarly acceptable to patients with weak stomachs.—Southern Medicine and Surgery.

The Local Treatment of Erysipelas With Acetozone.

DEAR SIR:—I had an ugly case of erysipelas in a woman of about thirty-eight years. I used as a local application, to begin with, a saturated solution of boric acid, and depended largely upon tincture ferric chloride as an internal remedy. I got the attack under control and supposed I would have no further trouble, but all at once the disease began to spread over the scalp. The usual remedies did no good. I thought that if Acetozone was the germ destroyer it was represented to be, it should be of use to me. So I made a solution of fifteen grains to two pints of water and used it freely on the scalp. I obtained results at once, and in twenty-four hours the disease had abated.

J. KNOWLES, M. D.,
Logan, Iowa.

The Correction of Abnormal Conditions of the Blood Relative to Surgical Operations.

Frequently the surgeon is called upon to operate on patients who, when they first present themselves, are in no condition to stand an operation on account of deficient quantity of blood or the poorness of its quality. On the other hand, it is desirable that the patient regain his normal condition as soon as possible after operation, whether the abnormal condition of blood is due to the operation or not.

The ideal remedy is that which will restore the normal condition of the blood in the shortest time with the least disturbance to the rest of the body, the digestive system particularly. Less necessary are palatability and cost of the remedy. To determine which of several preparations best fulfilled the above conditions was the purpose of this investigation.

All of the preparations used being recognized as good, Dr. A. J. Ochsner gave me permission to prescribe them as I saw fit to certain of his patients in Augustana Hospital. Only those cases were selected whose appearance indicated the need of a hematinic. As soon as possible similar cases were paired off, one patient being given one preparation and the other patient another, and the results compared. The cases were paired according to pathological condition, age, sex, general condition and the condition of the blood as to hemoglobin and erythrocytes at the beginning of treatment. The preparations used were malt with iron and manganese; malt with iron, quinine and strychnine; Blaud's pills, and the preparation known as peptomangan (Gude).

After watching the effect of the medication on the patients, and observing the records, it is seen that Blaud's pills acted quickly, but constipated; the malt combinations caused nausea in a few patients, and the malt, manganese and iron combination caused constipation in nearly all. The peptomangan, given in milk, was agreeable to take, and in no case did it cause nausea or constipation. While in two cases the Blaud's pills acted more quickly than pepto-mangan in two similar cases, on

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that RESINOL OINTMENT is the best local application for Eczema and kindred skin diseases, and as a dressing for burns and other traumatic inflammations it is simply superb. The itching and burning of Pruritus Ani, Pruritus Vulvae, Proctitis, Itching and Inflamed Piles, Marginal Eczemas and Fissures, yield to its soothing influence as if by magic.

Water does not irritate if RESINOL SOAP is used. There is nothing just as good, and beware of the dealer who says so. Resinol Soap cures Dandruff, is fine for the hair, and keeps the skin healthy.

I am using Resinol Soap and Ointment and like them.
WM. ROBINSON, M. D., Chicago, Ill.

Resinol is the best antipruritic I have ever used.
A. VAN DER VELPEN, M. D., Detroit, Mich.

I have used Resinol for several years, and as an antipruritic and antipyretic it has no equal.
WM. B. CRITTENDEN, M. D., Horton, W. Va.

I have used Resinol Ointment and Soap with much satisfaction.
C. S. HALEY, M. D., San Francisco, Cal.

I find Resinol an excellent preparation; as close an approach to being a specific as possible.
WM. CULP BROWN, M. D., Austin, Ill.

I get the best of results from Resinol.
JNO. KURTZ, M. D., Washington, D. C.

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CATARRH!

GERMILETUM is Really a Specific in CATARRH

That which has proven to be the ideal solvent and stimulating alkaline antiseptic is GERMILETUM, its persistent use twice or thrice daily, full strength, or diluted when the mucous membrane is sensitive, will effectually cure the worst advanced case of chronic nasal catarrh.

Dr. A. W. Latimer, late Physician to the St. Louis City and Female Hospital.

I have usrd GERMILETUM in many cases of catarrh. I consider it a most efficient remedy and really a specific in catarrhal affections.
Dr. A. U. Williams, Hot Springs, Ark.

I have used GERMILETUM in many cases of rhinitis with most excellent results. It is also the most efficient remedy in catarrhal affections.
Dr. E. W. Watkins, Washington, D. C.

Being myself the unhappy possessor of chronic nasal catarrh, which has run the gauntlet of treatment, out of desperation I commenced GERMILETUM with the most satisfactory results.
Dr. B. A. Lauberman, Los Angeles, Cal.

I have used GERMILETUM in the most aggravated cases of catarrh and have cured some of the worst cases. I consider it as near a specific in catarrhal affections as can be.
Dr. A. Jordan, Nashland, Tex.

Nasal catarrh, which has long been an odium of medicine, may now be successfully combated by alkaline antiseptic—GERMILETUM.
Dr. A. H. Ohman-Dumesnil, Professor of Dermatology in the College of Physicians and Surgeons.

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the whole the latter gave better and quicker results than any of the others, and at the same time caused no digestive disturbances in any of the cases.

Although the investigation was undertaken for the purpose of finding the best hematinic for surgical cases, it was tried in one case of chlorosis and in several obscure medical cases.

The following table shows the results obtained in all those cases where Gude's preparation was given. One to four drams were given in milk to each case, three times a day. The hemoglobin was estimated with von Fleischel's hemometer, and the erythrocyte count made with the Thomas-Zeiss apparatus. The first blood count was made previous to operation in all surgical cases, and the last a short time before the patient's discharge from the hospital. The second count was never made immediately after the operation because of the temporary derangement due to the anesthetic and the loss of blood:

Name	Age.	Diagnosis.	Date.	Erythrocytes per 1 c.c.	Per cent. of Hemoglobin.
1. G. N.*	53	Carcinoma of stomach	9 29 03	2,920,000	33
			10 12 03	3,400,000	43
			10 25 03	3,260,000	42
			11 8 04	2,520,000	36
2. Mr. L.*	49	Carcinoma of stomach	10 29 03	2,665,000	27
			11 23 03	2,900,000	28
			12 5 03	2,540,000	27
			12 19 03	2,300,000	26
3. Miss J	17	Acute memorrhagia	12 4 03	2,310,000	36
			12 20 03	3,565,000	44
			12 27 03	4,160,000	49
4. Mrs. E. K.	33	Menorrhagia	12 7 03	4,340,000	44
			1 10 04	3,565,000	64
			1 18 04	5,100,000	82
5. Mr. S.	23	Neurasthenia (?)	12 16 03	4,060,000	60
			1 7 04	4,260,000	65
			1 14 04	4,560,000	75
6. Mr. K.	35	Tuberculosis of mesenteric glands	11 15 03	3,825,000	62
			12 10 03	4,826,000	68
			1 4 04	4,716,000	66
7. Mrs. F.	23	Pelvic abscess	10 25 03	4,060,000	60
			11 23 03	5,100,000	69
			12 11 03	4,975,000	78
8. Mrs. A.	34	Pelvic abscess	12 10 03	3,195,000	53
			12 29 03	4,293,000	58
			1 11 04	4,560,000	78
9. Miss A. J.	16	Chlorosis	10 25 03	3,010,000	45
			11 12 03	4,950,000	65
			11 28 03	5,676,000	80
10. Mrs. H.	40	Myoma of uterus	7 15 03	2,100,000	42
			8 17 03	3,900,000	55
			9 15 03	4,500,000	80
11. Johnny L.	13	Tuberculosis of hip	12 1 03	2,680,000	45
			12 29 03	3,600,000	55
			1 20 04	4,100,000	62
12. Mr. E. P.	21	Tuberculosis of ankle.	10 29 03	4,310,000	66
			11 10 03	4,850,000	71
			1 23 04	5,166,000	75
13. Johnny E.	9	Extensive burn and infection of surface	11 9 03	3,560,000	50
			11 25 03	3,900,000	56
			1 23 04	4,362,000	68
14. Miss E. B	17	Perforative appendicitis	11 25 03	3,600,000	55
			12 26 03	4,000,000	65
			1 22 04	4,250,000	69
15. N. N.	29	Suppurative appendicitis	12 20 03	4,200,000	60
			1 2 04	4,400,000	66
			1 20 04	5,120,000	75
16. Mr. B.	28	Chronic appendicitis	1 2 04	3,565,000	62
			1 10 04	4,320,000	70
			1 23 04	4,800,000	78
17. Mr. S.	37	Gangrenous appendicitis	10 10 03	3,300,000	45
			10 27 03	3,350,000	45
			11 27 03	3,010,000	40
18. Miss W. J.	29	Empyema	11 20 03	2,740,000	44
			12 20 03	3,070,000	52
			1 22 04	3,820,000	60
19. Mr. F.	44	Cholelithiasis Chronic appendicitis.	11 23 03	3,560,000	57
			12 4 03	4,100,000	68
			1 12 04	4,640,000	78

* Incurable.

A Rational Treatment for

Pulmonary Tuberculosis

IS

Firolyptol with Kreosote

(TILDEN'S)

Formula:

Eucalyptol		
Kreosote (Morson's)	aa	m x
Ol. Gossypii Sem. Purificat. (Pancreatized)		ʒ ss
Firwein (modified)	q s.	ʒ j

Dose: Half to one tablepoonful after meals.

Samples on Application.

Prepared Expressly for Physician's Prescriptions.

THE TILDEN COMPANY,

Manufacturing Pharmacists.

New Lebanon, N. Y. **St. Louis, Mo.**

In the nineteen cases tabulated there is an average increase of 800,000 erytnrocytes and of 14.5 per cent. hemoglobin. This improvement was during forty days on an average. The usual time a patient stays in the hospital is twenty-one days when the case is of ordinary severity from a surgical standpoint. Such cases were placed on tonic treatment and showed rapid improvement, but of such cases only one (Case 16) is noted because it might be urged they would improve equally fast with or without a tonic.

It is seen from the above table that even in the cachexia of carcinoma there is a temporary improvement, which shows that in the use of this tonic we are dealing with a powerful hematinic. In Case 17 there was no improvement, the patient dying shortly after the last count. At the autopsy I found a pyogenic abscess in the liver as large as an orange and about 200 c.c. of pus below the right kidney, which explained the retrogression. In all of the other operated cases the improvement was steady and marked, especially in uterine diseases accompanied by loss of blood. In the case of chlorosis (Number 9) the improvement was remarkable, the patient discharged cured in a little over a month, at which time all the symptoms had disappeared.—S. C. Emley, M.D., of Wichita, Kansas, Late Pathologist Augustana Hospital, Chicago, Ill.

Indigestion, Gout, Diabetes.

Indigestion has correctly been called by prominent American physicians the "Bane of the American people." It is common with all classes, the rich and the poor, the banker and the mechanic, the statesman and the merchant, the young and the old, caused by the rush and hustle in the eager pursuit of everybody to accumulate the biggest wealth in the shortest possible time. This causes people to forget and overlook the most essential rules of diet and hygiene, necessary for a good and healthy constitution. The swallowing of food without mastication, the gulping down of great amounts of ice-water or of stimulating potions of strong tea or coffee or—worst of all—alcoholic tonics, combined with lack of physical exercise, must necessarily break down the digestive organs. The liver thus getting sluggish, faulty metabolism is caused, all other inner organs refuse to work properly. Either an excessive amount of uric acid is produced giving rise to so many distressing symptoms of gout, such as sour eructations, fluctuating pains, insomnia, etc., etc., or retarding the glycogenic functions which finally result in diabetes. As the stomach, as well as the liver, kidneys, spleen and pancreas are affected and overtaxed at the same time, it will naturally be necessary to institute a rational treatment regulating the functions of digestion and assimilation. Clinical tests, made by well known physicians here as well as in Europe, have given Kutnow's improved effervescent power a very prominent place amongst the therapeutic remedies for the aforementioned ailments. It is strongly recommended by acknowledged medical authorities for the treatment in rheumatism, gout and disorders of the stomach, liver and kidneys. "Its advantages," says a medical authority, "appear to rise from its possessing the power to eliminate from the body the excess of bile and acids, thereby purifying the blood and strengthing the general tone by improving the assimilative processes of the debilitated system."

The Therapeutic Value of Pepto-Mangan (Gude).

The number of older preparations is so considerable that it seems on first sight desirable to weed out some of them, rather than to add to the list. If in spite of this the newer preparations have

gained the upper hand, the cause must be sought, not in the attractions of novelty, but in the force of success. Hematogen, which is known to almost every one, has been so popularized and so extensively used that there seems to be a disposition already to value it less for its blood-forming power than for its appetizing, anti-scrofulous and roborant action.

While I am persuaded of the value of this remedy, which I have prescribed quite frequently and fully appreciate its merits, I have not been able to confirm the statements of those who esteem it on account of its being well tolerated, and have reached contrary conclusions on this point, The custom of many clinicians and experienced practitioners is not to interrupt at once ferruginous medication after the disappearance of the chief symptoms, but to continue it for some time, is in many instances impossible with hematogen. It has repeatedly happened to me, more often in adults than in children, that the patients refuse to continue the use of hematogen after taking the first bottle, They state that it is too powerful and too satiating, and this is the case, not only with irritable and sensitive persons, but those who have an energetic and resolute disposition, and who can be persuaded to resume its use, but finally manifest such a decided repugnance towards the remedy that their wishes must be gratified and another preparation substituted. In such cases I was led to resort to Pepto-Mangan (Gude), which I must credit with being much better tolerated and more agreeable. My observations extend now over a large field, comprising patients of various ages and conditions of life, so that I am able to formulate a reliable opinin of this preparation in the following conclusions:

1. Pepto-Mangan (Gude) is incontestably a blood-forming preparation, and in this respect is fully equal to every other preparation.

2. Its use is therefore recommended in all those diseases in which, through an increase of blood and improvement of its quality, a cure or a beneficial influence, upon the organism is to be expected; as for instance, in chlorosis, anæmia, leukæmia, in chronic diseases of the respiratory organs, in many digestive disorders, especially after diarrhœas, and in convalescence from various diseases, especially in weak and anemic women after childbirth.

3. Owing to its great palatability and tolerance this preparation does not require any correctives, and is adapted especially in obstinate and protracted disease, in nervous, neurasthenic, and all other persons who are unable to take other iron preparations even for a short time. In people who require iron and are afflicted with nervous dyspepsia Pepto-Mangan (Gude) is not only by far the best ferruginous preparation, but at the same time a stomachic which has a most favorable influence upon the secretory functions of the stomach.

4. Its blood-forming and in general curative properties depend both upon the direct introduction of iron upon its power of stimulating the appetite and digestion. Owing to its fortunate composition this preparation deserves a general symptomic employment.

5. Unpleasant by-effects are excluded.

Pepto-Mangan (Gude) therefore constitutes a valuable addition to our list of remedies. I prefer this preparation, which has never left me in the lurch, to all similar products, and am persuaded that within its field of indications it will prove of equal service to others. As regards the dose, it is advisable in general to follow the printed directions, although in individual cases it may be exceeded without the least untoward effects; for it is one of the prominent advantages of the preparation, that while exhibiting in full its curative effect, it never satiates or becomes repugnant, but permits of administration according to requirements, for a short period as well as many months, and that it is equally well tolerated by children and adults of both sexes without exciting the least aversion.—Dr. Vehmeyer, Haren, Germany.

The Journal of the American Medical Association.

Editor Lanphear, of Amer. Surg. & Gynecology, attacks methods of the Journal of the A. M. A. and says: "There seems to be a genuine feeling of illnature on the part of medical journalist toward the Journal of the American Medical Association, the Journal of the California State Medical Society being especially bitter in its denunciation of it as 'the greatest advertising medium of America'—conducted at the expense of the members of the A. M. A. The Medical and Drug Advertiser has lately expressed its opinion as follows: 'The rapid and phenominal success of the Journal of the American Medical Association has hurt every other journal in the country more or less. There has been a growing dissatisfaction amongst medical editors for some years, and efforts have been made to have the advertising rates of the Association Journal increased so as to restrict its business, and not hurt its smaller competitors so badly. Lately a number of Journals have attacked the association methods openly in their columns. At the time the journal was started there were grave doubts as to its expediency, and some of the older and wiser members opposed the proposition. It is now claimed that the association is improperly and unprofessionally accumulating a large amount of money, and that there is a growing temptation to use this surplus in the manufacturing of anti-tones, specialties, and in selling tablets, or in subsidizing some favorite preparations. Some contend that no subscriptions should be solicited outside of the association membership, and others that only enough advertising should be taken to make up the deficiency. There is also considerable rivalry in regard to the editorial management, and a number of bright doctors think they could conduct that department better than it is at present. As a matter of fact, no editor has been able to hold this position very long, and it is intimated that several of them have suffered seriously with their health on account of the laborious duties and unnecessary friction. As the older journals made the American Medical Association, and by their liberal encouragement and support in the past, have sustained and developed it, they naturally object to unfair competition and expect liberal and co-operative treatment in the future.' A prominent monthly demands that the Association Journal answer the following questions, and if this open agitation continues (which is most probable), there will be an opportunity for some interesting discussions at the next meeting of the American Medical Association: 'Let the Association Journal answer these questions: (1) What are the necessary expenses of the Association? (2) What are the necessary expenses of the Journal? (3) What is the actual income from members of the Association? (4) What is the actual income from subscribers? (5) What is the actual income from advertisements? (6) What disposition is made of the balance of the funds? (7) Why does the Association enter into ruinous competition with other medical journals, if it is not really necessary and may do harm? Will the Journal do it? Its figures usually are very confusing.—Southern Medicine.

A prominent physician in lecturing recently on a case of senile pneumonia at the Philadelphia Hospital, said:

"Hot flaxseed poultices, well made so as to retain their heat for four hours, were kept about the thorax during the day and at night were replaced by a lamb's-wool jacket, for the better part of a week. It is important when poultices are used that they

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should be well made and should retain their heat for four hours, in order that the patient shall not be continually disturbed to change them. Fever patients need rest, not only sleep at night, but rest during the day. It is rarely wise to wake the patient, either for food, for medicine, for bath, or for any other application. Save in exceptional instances, sleep will do more to favor recovery than the agent for whose sake it is interrupted."

The time was when the above statements would have received the hearty endorsement of all thoughtful medical men. But this is not the ox-cart, candle or horse-car age. We are living in the twentieth century. The old things must be laid aside. They are valuable only as antiques.

We have the cleanly and convenient electric light instead of the greasy candle. Why not Antiphlogistine, made of cleanly and aseptic materials and capable of maintaining a uniform degree of temperature for 12 to 24 hours or more, instead of the bacteria-breeding, soggy, clammy linseed and other poultices?

Most up-to-date doctors say,—"Yes, we know all about Antiphlogistine and use it regularly as routine treatment in all cases where inflammation is present and a local remedial agent is indicated."

Picture an individual with temperature 104 to 105 deg., pulse 120--140, respiration 40--70. If any one craves and absolutely needs rest and sleep it is such a patient. A linseed poultice affords a very poor means for the continuous application of moist heat, nothing more. It cannot be sufficiently well made to retain a temperature of value for more than a half hour. Antiphlogistine need not be changed oftener than once in 12 to 24 hours during which time a comparatively uniform temperature is maintained. Refreshing sleep is invited, and not hindered. It stimulates the cutaneous reflexes, causing a contraction of the deep-seated and coincidently a dilation of the superficial blood-vessels. At the same time it attracts or draws the blood to the surface—flushes the superficial capillaries—bleeds but saves the blood.

The circulation is thus favorably affected. The aggravating symptoms are almost immediately ameliorated. Congestion and pain are relieved, the temperature declines, blood pressure on the overworked heart is reduced, the muscular and nervous systems are relaxed and refreshing sleep is invited.

The Respiratory Link.

The truth of the old adage that a "chain is only as strong as its weakest link" is forcibly illustrated in medicine. The constitution of a patient may in most of its relations be normal; yet the chain of health is impaired by one function which is the seat of more or less constantly recurring disturbances.

The most frequent form of this weak physiologic link that confronts the physician is that manifested by the patient who, with the advent of winter, suffers from repeated congestions and inflammations of the respiratory organs. It may be that at all other times of the year the individual is, as far as indications go, in a good state of general health; it is, however, more commonly the case that the skilled diagnostician is able to recognize an impairment of constitutional vigor, which is in reality the cause of the respiratory disturbances. Present-day scientific teaching emphasizes that it is unwise to treat these patients with expectorants, cough syrups and respiratory sedatives; these latter remedies are at the best but palliative and do not reach the cause of the disturbance. It is more rational to endeavor to strengthen this respiratory link by restoring its integrity, and the proper way to do this is by treatment directed to the real causative factor, which is an atonic condition of the system.

The experience of many years has taught that these constantly recurring respiratory disturbances may nearly always be prevented or at least reduced in frequency and severity if Gray's Glycerine Tonic Comp. is administered throughout the winter. If, however, this precaution has not been observed and the patient is already suffering from his regular winter cough and bronchial or pulmonary distress, treatment with Gray's Tonic is still the most efficient.

The manner of the action of the remedy in these cases is two-fold: first of all it overcomes malnutrition by stimulating the torpid nutritive functions to assume normal activity; as a consequence the patient's constitutional vigor is strengthened and incidentally the relaxed atonic condition of the respiratory mucous membrane is eradicated.

The second effect of Gray's Tonic in these cases is upon the local disturbances of the respiratory mucous membrane—it has a direct antiphlogistic and tonic influence upon the disordered circulation; it thereby relieves engorgement and restores tone to the relaxed blood vessels.

Gray's Tonic is to be preferred in the management of these acute and chronic respiratory conditions, because it gives the patient relief from the very start and if persisted in, overcomes the condition completely. It strengthens not only the weak respiratory link but also the entire chain of constitutional vigor.

A Valuable Auxiliary in the Treatment of Pneumonia.

"Pneumonia is nowadays considered a general infectious disease, due to a special germ, and not, as was formerly believed, a local condition resulting from exposure to cold. It is therefore, of the utmost importance that once it appears in the household every precaution should be taken to prevent its spread to other members of the family. As the germ is carried through the air, this cannot be accomplished by fluid disinfectants; an unirritating and non-poisonous antiseptic which is sufficiently powerful to destroy the infection and yet can be freely breathed by the patient is required. There is only one safe and efficient agent of this kind, and that is Vapo-Cresolene, Experiments by a member of the Pathological Department of Yale University have demonstrated its high germicidal power. Its vapor permeates the air of the sick-room, destroys the infection at its source, and when inhaled by the patient allays cough and irritation in the air-passages, promotes expectoration and thus aids materially in bringing about recovery."

Dr. W. H. Barnett, of Huffins, Texas, in the Alkaloidal Clinic for November, 1904, says:

To Brother W. W. Shaer: I am satisfied that ecthol, a combination of echinacea and thuja, will prevent the sting of bees from hurting him. Let him take dram doses every hour for three hours before he commences to work with them. The reason for the faith that is in me is this: They used to hurt me.

Last summer I was taking it for a skin disease and while under its influence I was stung by a wasp on the face and neck. When stung I started to the house to get something to stop the pain and swelling that I expected to suffer with, but instead of pain and swelling as heretofore when stung, there was no more of either than a mosquito or a gnat would have caused.

Elixir in Bronchial Irritation, Coryza in Catarrh.

℞ Atropine Sulphate 1-10 of a milligramme
Terpine Hydrate 1 gram
Benzo-Kinone 4 grams
Heroine 5 centigrams
Elixir de Garus (Codex) 30 grams
Glycerine 100 grams
M. F. Syrup.

Sig. One teaspoonful every two hours whenever the conditions are annoying, or three times a day between meals.

The Charlotte Medical Journal.

VOL. XXVI. CHARLOTTE, N. C., FEBRUARY, 1905. No. 2

Tracheotomy for Gunshot Wounds of the Trachea.

By J. McFadden Gaston, M. D., Atlanta, Ga.

In discussing the subject of gunshot wounds of the trachea, we are aware that we have to deal with a wide range of injuries, with the complications that may occur from septic infection or laryngeal stenosis. This class of cases is a very considerable source of death. Even in small wounds a laryngeal stenosis or defective voice, if not a fistula, may occasion trouble. As treatment needs to be prompt and well directed to the case, the prognosis is often serious when a gunshot wound occurs.

As to the secondary diseases following tracheotomy, secondary hemorrhages have been known to take place during the after-treatment. Erosion of the innominate artery from pressure of the tracheal tube has been attributed to low tracheotomy or suppuration by Korte, Guadisher, Maas and others. Fatal secondary hemorrhages have originated in the lungs.

In the final process of repair, we find granulations, which by their presence and position occasion trouble. They may be in the tracheal wound itself or in the margins of the trachea, where the tube has abraded a sufficient amount of mucous membrane to stimulate their growth. This may occur where the curve of the tube presses upon the posterior wall of the trachea and in cases of phonation tubes which contain an aperature. The margins of this aperture should be very smooth or they will occasion this trouble. A valve-like enclosure of the trachea by granulations has frequently given rise to asphixia when the tube was needed to prevent imminent death. A sharp spoon or the galvano-cautery may be applied to such grauulations and their destruction accomplished, when it is not though best to remove them by a pair of scissors with forceps. In such cases a continual source of inconvenience is blood which has been known to cause instant death when inhaled into the lungs. Although in cases of diphtheria, the tube is often removed in a few days, and the wound from tracheotomy heals kindly, there is cause for greater delay for prudence sade in gunshot wounds where stenosis has occurred from oedematous laryngitis.

N. T. (female) aged 8, with a history of good health, except a few of the diseases of childhood, was shot through the neck and right shoulder, July 3, 1904. The wound of entrance and of exit of a ball from a 38-calibre pistol, was in a line with the larynx, while the wound in the shoulder was in the line of the acromion process, and the exit ranged somewhat backward of the scapula. In the course of the bullet a shot of this kind would probably traverse the trachea and the soft parts of the neck, and also the shoulder joint, involving the capsule.

Her condition was quite serious, due to hemorrhages and obstruction of the larynx from oedema. The wounds were dressed by Dr. J. N. Brawner, who saw her soon after the wound was received, A swab of bichloride gauze was used to disinfect the track of the bullet. The family physician, Dr. J. W. Carmichael, was also called and assumed charge of the case. The disease known as oedema of the glottis was supervening, when I was called in July 4th, with the request to be prepared to do tracheotomy.

In many respects this case is unique and needs no apology for claiming the valuable time of this Association. S. D. Gross has called tracheotomy the dread of surgeons, and explained to us that while larynotomy is easy and safe, that tracheotomy is far from being so. He has also warned the student of surgery against the cases of children where the neck is short and fat. While surgeons are familiar with the anatomy of the neck and with the technique of tracheotomy in the cases of obstruction from foreign bodies and from the tumors of the larynx and inflammatory products of diphtheria, it is rare for a gunshot wound to occasion this operation. Such wounds in children are particularly uncommon, and in little girls almost unheard of, from the fact that they are usually protected therefrom.

The object of the man who shot this little girl was to convince some tramps that he was prepared to shoot. The tramps were in a coal-car and had already given trouble on the way to the city. The circumstances are such that a surgeon should consider, as they have given rise to a damage suit for $20,000 (twenty thousand dollars) against the railroad company, and the imprisonment of the man. In this case, the little girl was standing up on a gate in her parents' back yard to see the approaching freight train which comes by in a cut in the road below, when she was shot in the manner described. The flagman or conductor of the freight train was standing on

*Read before the Southern Surgical and Gynecological Association at Birmingham, December 17, 1904.

the top of a box car and discharged a pistol shot, which took effect in the little girl's neck. His connection with the case was that of an agent of the road in the discharge of his duty.

The symptoms presented were dyspnea and distress and a decision upon operation was based upon the necessity for drainage and an open wound, although no rise in temperature or chill betokened a septic infection.

In this case the physicians in attendance, Drs. J. W. Carmichael, J. N. Brawner, H. M. Clarke, and myself, met at the house of the child at Howell Station, a few miles from Atlanta, to perform the operation. Our idea was to incise as for tracheotomy and judge of the necessity for an incision into the windpipe from the character of the wound in it. A thorough preparation of the field of operation was first made, and a considerable time before the operation, a hypedermic of 1-16 grain of morphine and 1-600 grain of stropine sulphate was injected. Chloroform was administered by Dr. Carmichael. The patient being in a position of extreme extension of the neck and the head hanging over the edge of a table, enabled the operator to make an incision in the middle of the anterior portion of the neck. The wound was sponged with adrenalin chloride solution, with a normal saline solution, and was comparatively free from blood.

The necessity for haste in the steps of the operation became apparent when theregion of the trachea was reached and probably some blood may have entered the gunshot wound in the windpipe. A violent asphixia left no room for doubt and no time for indicision; and the string that had been tied in the muscles was lifted so as to expose the glistening white trachea, which seemed to be about the calibre of a lead pencil. A thrust of the knife and a tube following its opening in the trachea were the steps of the operation done in the emergency. The time taken was less than for describing this part. The seizure of the patient by the feet and the suspension of the body of the child, led to a resuscitation. The patient was allowed to regain consciousness and to breathe before the completion of the dressing. No sutures were placed in the trachea, and only a silk suture in the myo-hyoid muscles served to keep the patient's trachea in position of ready access in case of danger to her from suffocation should the tube be disturbed or dislodged in coughing.

The position of the incision into the trachea was lateral rather than on the anterior surface of the windpipe. The condition of defection from the normal position of the trachea made it extremely difficult to reach, so that more than one attempt was necessary in order to reach the trachea. In a child the trachea is quite deeply situated. An extra gush of blood is apt to occur, especially when the blood vessels are already congested. The child was very weak and yet regained her strength sufficiently to be able to leave her bed in her efforts to be more comfortable.

A trained nurse, Miss Alva Garner, was detailed from the Tabernacle Infirmary, and had constant oversight over this patient for nearly four months. She learned to take out the inner tube, cleanse and replace it, and to manage the child in a gentle but firm manner.

The child's temperature was as high as 103 when she was suffering with the bronchitis incident to the injury to the trachea.

After the operation, a prescription adapted to the bronchorrhea was as follows: "Camphorated tincture of opium, 1 drachm; carbonate of ammonia, 1 drachm; oil of turpentine, 1 drachm; camphor water, two ounces; mucilage of acacia sufficient for six ounces. M. Sig. Take a teaspoonful every three hours.

Her respiration at 8 p. m., on July 4th, the day of the operation, was 30; pulse 130. temperture 102 3-6. She was breathing quietly and was able to drink a small amount of water without nausea. She was breathing quietly and slept short naps later when I visited her. I was importuned to let her have some water, which being drunk, was returned clear by the stomach. As she became quite restless in the midnight hour, she was given ten drops of paregoric with good effect, perspiring and resting well after 1:30 a. m.

The usual medicines which avail for bronchitis were kept up, antiseptic dressings were used while the nurse was given instructions as to the manner of removing the inner tube in order to cleanse it of mucus, which being of a doughty consistence often obstructed the lumen of the tube. On one occasion particularly, it became necessary to do this; and frequently afterwards, as the obstruction to air was complete, and the nurse reported the viscid condition of the mucous to be such that a stick was inserted in the tube before a dislodgment was effected. The patient responded well to the treatment. On the 9th of July, only five days after the operation, she was considered on safe ground. A photograph was taken on the tenth day, when she was able to be out on the porch. The weather was warm and dry, greatly facilitating her respiration through the tube. About a month after the large photograph was taken, another likeness of the little patient was secured, and

appears as evidence of her continued use of the tube without serious inconvenience. There were spasmodic coughs when the inner tube was removed, generally relieved by a little water. The mucus was examined by Dr. Ephriam Smith, August 22, 1904, and no pathogenic bacteria were found microscopically. The tube was removed three times daily for thorough sterilization. The nurse was allowed to leave the patient for some hours, and no ill results were feared. On the whole, the patient contidued cheerful and happy. Her condition of health was improved with tonics, and in order to secure a closure of the opening made by the operation before cold weather set in, it was thought best to remove the tube. On the 19th of September, we had intended to test the matter of her ability to breathe by the ordinary channel, and if the air passages seemed to permit, to have her dispense with the tube, and we secured the services of another trained nurse in the absence of the one who had been so satisfactory, but had been obliged to return to the Tabernacle Infirmary. Dr. Carmichael gave the anesthetic—pure chloroform—and the patient breathed very well with the swab applied to the mouth of the tracheotomy tube.

During the application of anesthetic in this way it was necessary to remove the tube when the breathing was not so satisfactory, and the only explanation of a violent cough was that adhesion may have been somewhat broken and a drop of blood allowed to enter the trachea. Her violent efforts to remove this blood were effectual and portions of mucous and blood were expelled with force sufficient to reach the glasses worn by me; and to force me to replace the tube, which fortunately allowed the air free access to the trachea and respiration was resumed. As this was done so readily, it was obvious that the tube could be removed and replaced without trouble by the nurse. This was due to the adhesions that had taken place between the edges of the wound in the trachea and the external wound, The condition of the parts was very favorable to granulations, which were expected to fill up the opening. In order to test the matter again, our patient was replaced under chloroform again, and it was under more favorable circumstances. She was at the Tabernacle Infirmary where her general condition could be looked after more fully so that at any moment the tube could be replaced by a nurse. The result showed this to be unnecessary, but at the same time, the indications were that it would be needed.

On September 22, 1904, the tube was removed, and the patient breathed without great difficulty even through the wounds. When this was held together loosely by the fingers, her breathing was shown to be through the natural channels. She had been thoroughly anesthetized in order to have no excitement and the ordinary natural breathing would be possible.

With a child, habit is second nature, indeed, and with this child, breathing through the tube nearly three months was fast becoming her mode of breathing.

Reasoning that any interference with this would occasion some involuntary struggle, we sought to remove all the reflexes.

Her power to resume her normal mode of respiration was assured when a piece of gauze was arranged in the form of a cone, and she was allowed to breathe with the external wound closed in this manner, holding it in position at first, and afterwards using adhesive strips to retain the gauze. The gauze was carried to the edge of the trachеal wound, and fixed here. Then the whole neck was encircled with the gauze bandages.

When the girl awaked, she was with her nurse, but cried and sobbed audibly, as she had not been able to do before. Her recovery afterward was uneventful, no disturbance of the inner gauze plug was permitted until she was in a better position to breathe with no interference from without the trachea.

As soon as the trachel wound itself could be closed, she would be on safe ground from this source. Granulations from the bottom so crowded the orifice in which the gauze cone was situated, that she was allowed a short respite from dressings to have perfect rest to the tissues. Permanganate of potash solution 1-1000 was applied before anything was done to the internal ones. No medicines save those she had been taking were required. She gave no trouble to the nurses except when a dressing was needed. Her health was such that she walked about the infirmary and assisted the nurses. Her voice regained all its childish tones and she left the infirmary October 16th, less than a month after she entered, with perfect cicatrix and no fistula.

I wish to draw special attention to the position of the incision as it differs materially from any tracheotomy I have seen described. I believe it is an improvement so far as the use of a tube as commonly made goes. As has been said, the tube frequently presses with a great deal of force upon the posterior walls of the trachea, and at times this pressure has also extended to the anterior walls of the oesophagus, thus interfering seriously with the deglutition. In this respect, no pressure was made which could have inconvenienced the patient, as she could swallow both liquids and solids.

Notes on Psoriasis. *

Thomas W. Murrell, M. D., Lecturer on Dermatology, University College of Medicine, Richmond, Virginia.

As the title of this paper would indicate, I have no intention of going into an analysis of this disease, but rather to present some features to one undertaking to treat a case and a few practical points bearing thereon.

The name psoriasis, is derived from the Greek, to itch. This is strange because itching is not a prominent symptom of this disease, rather the opposite, so that with itching present to any great extent we begin to suspect and look for other conditions.

Tke nomenclature of dermatology is perhaps the worst arranged of any department of medicine. We sometimes see and hear of such terms as seberrhoea-psoriasis, psoriasis-eczema, and the like. Such terms are wholly unscientific and only serve to confuse.

That two distinct diseases can coalesce and give birth to an entirely separate disease is not in keeping with fixed laws; but as molten metals may run together and not combining, yet form mechanical mixtures, so it occurs in this class of cases.

Assuming that all present have seen psoriasis and are familiar, in a general way with its distinctive characteristics, let us consider.

What is psoriasis?

Is it a local hyderkeratosis due to local causes or does it spring from some deeper source, some condition involving the general body economy.

The fact that psoriasis is a disease of good health would incline one to think it a local affair, In a majority of cases nothing can be found at whose door we can lay the blame. The skin around the placque may be of surpassing beauty and the patient never ill in his life.

Herein it differs so materially from eczema and Crocker has given his students the following doggeral as a memory aid:

The complexion of psoriasis is clear and ruddy
The complexion of eczema is pale and muddy.

Despite the obscureness of its etiology there are indications that psoriasis is a local infection with a local manifestation, becoming later on a systemic disease.

Take a case like the following: A patient presents himself with a patch of psoriasis, say on each elbow. They do not bother him and rapidly clear up on local treatment and the case is discharged Six months later he returns with an eruption so sudden in appearance and rapid in formation as to be nothing less than a systemic explosion.

Frequently these first placques are larger than the later ones. This helps to bear out the theory for the first spot of pityriasis rosea is larger than any of the rest and this we know to be a general febrile disturbance. Now what this poison is that produces psoriasis, we do not know. Certainly it is not a virulent one because of the mild effect upon the general health, but that there is infection, Destot's experiment, I tnink, has placed beyond all doubt.

Destot took some of the scales from a child with vacciniform psoriasis and rubbed them on excoriations over his deltoid; soon after spots appeared on his elbows and later on while taking arsenic he broke out in a general eruption. He now has them at regular intervals. In the treatment of psoriasis we work along these lines:

First—Permanent cure.

Second—Prevent recurrence.

Third—Lessening severity of attack.

If it be in its later stages a systemic disease then as to the first two lines of treatment, internal remedies immediately suggest themselves. Of course always correct anything that is wrong elsewhere, such as gouty diathesis, etc., but there seems to be only three drugs that have any specific action, salicin, thyroid extract and arsenic. Arsenic is certainly the most used but as certainly the most abused drug in dermatology, always a screen for professional ignorance, it is frequently so used as to be more productive of harm than good. Continued heavy dosage frequently not only results in heavy thickening of the palms, but on removal of the placques there may be deep pigmentation and this pigmentation is permanent. Skillfully administered it is sometimes productive of good, but because of the slowness of its action an attack may come and go before the effects of the drug are manifested.

Consequently the good results are only obtained in old cases, where there is much thickening of the skin Hyde makes the following observation: "An unprejudicial view of the value of arsenic even in cases properly selected for internal administration justifies the conclusion that it is in diseases of the skin, a remedy of uncertain effect and in that proportion disappointing. * * * It is safest to conclude that arsenic instead of being one of the earliest should be one of the last remedies to be selected."

Thyroid extract is also limited to the chronic cases. It is given until the physiological action is obtained, when the dose is reduced to half. This drug, if given in the acute stage, rather augments the trouble than retards it, but in cases properly sel-

* Read at the meeting of the Medical Society of Virginia, October 21, 1904.

ected it is a routine treatment in some of the London hospitals and good results are obtained.

Salicin is better than either of the other two. It is applicable to any stage of the disease and not only retards the attack but lessens the severity and hastens desquamatiod and final clearing of the skin. These are the best of the internal remedies, all empirical and all unsatisfactory, because despite of what you do, the disease does recur and a permanent cure is yet to be discovered.

When we come to the external remedies we come to really the most important part. In applying these it must not be forgotten that the scales of psoriasis are virtually plate armor and must first be removed. A good scrubbing brush with alkaline soap, having previously saturated the scales in oil will do this and we may go ahead. Chrysarabin in solution or ointment is still the most efficacious remedy we have, though salicylic acid and many other drugs are useful.

The X-ray has been vaunted in dermatology and recommended in psoriasis, but here at any rate the pendulum has swung back and it has proved a failure; proved a failure as all remedies have proved failures; it does not prevent recurrence and does only what external medications can do and does it much more slowly.

A young English dermatologist in conversation said: "All the X-ray has done in psoriasis is to remove the treatment from one of pence to pounds," and this is true.

In preventing profuse kerotinization the tars are the best and resorcin and the liquor carbonis dertergens are the most efficient. These can be gotten out of any good textbook, but what I want to impress is the necessity, if there be local infection, to treat the first spot as persistently as a general attack. Do not wait, treat each attack persistently as it occurs. As to psoriasis it almost certainly recurs, but persistent treatment seems to wear it out so that the attacks lessens in frequency and severity.

In closing I make no apology for presenting this subject for your consideration. Psoriasis in regard to its etiology and permanent cure is as much of an unsolved problem to-day as it was fifty years ago. Such maladies will always be of especial interest to the scientific enquiring mind for leaving aside the good to be accomplished there is always a fascination in the mysterious and unknowable.

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The Importance of Urinary Examination.

By B. L. Taliaferro, M. D., Lecturer on Urinology, Medical College of Virginia, Richmond, Virginia.

"A knowledge of urine in health and disease is of the greatest importance to the physician, inasmuch as this fluid constitutes one of the most valuable aids to diagnosis of disease, both medical and surgical." This, of course, all of you know full well; my only apology for this paper is that an important subject does not diminish in importance by being repeated from time to time, and further that many of us, although we know the importance of the subject, in some cases, we neglect the careful examination of the urine; as a result, perhaps, the patient dies or another physician takes our place. Have you not a case in mind which you might have held, or another that you might have saved from convulsions and death, if you had been more thorough? I trust you have not.

The importance of the subject appeals not only to the physician, but also to the surgeon, the obstetrician and life insurance examiner. Next to the pulse and temperature, the urine offers the greatest possibility for insight into the workings of the human system. Aside from its purely clinical value, uranalysis is essential to the study of the physiological processes of the body, and the determination of changes in its metabolism produced through normal and abnormal influences.

A patient should be systematically examined from head to foot, and the examination of the urine is just as important as an inquiry into the condition of the bowels. Through the skin, bowels and kidneys most of the waste matter leaves the body; if one of the organs is not doing its work we should know it.

In examining for albumin, unless great care is used, small traces may be overlooked, although the microscope shows casts. It is important that the urine be filtered and a second test used if there is any doubt. It is not infrequent to find casts under the microscope when albumin has not been found with the nitric acid test so commonly used. On the other hand large amounts of albumin have been found when few, if any, casts are present. This proves that we cannot rely on either the microscope or chemicals, but must use both if possible. In speaking of the per cent. of albumin, whether by bulk or weight is meant, should be stated. A very large amount by bulk would seem a very small amount by weight.

In obstetrical cases, the uriue should be examined at frequent intervals for several months before delivery. I have examined the urine of two cases recently which illus-

trate the importance of this statement. In one the child had been delivered and the mother and child were doing nicely; the husband who had been out of town at the time returned the next day to find his young wife in the throes of death. It is unnecessary to describe the scene. A sample of urine, very scanty in amount was obtained by catheter and showed a large amount of albumin, diminished urea, and all sorts of casts. The convulsions came on 24 hours after delivery, and in 24 hours more, death followed.

In the other case, the convulsions came on shortly before delivery, and were very severe, the patient being unconscious 48 hours. She, however, recovered. The physician had been engaged several months in advance in both of these cases. He had instructed them both to send specimens of urine to his office, but they had failed to follow his instructions. I believe that not a single woman would neglect this matter if we impressed them with the importance of it, and told them of the grave results that might follow.

To the surgeon the knowledge of the condition of the urine is important. The contemplated operation must be postponed, if the kidneys are not in good condition, unless it is an emergency case. The choice of anaesthetics will depend on the condition of the urine.

How often is it that the life insurance examiner finds sugar or albumin in apparently healthy subjects? The companies are very strict in this matter. The examiner must have a good working knowledge of the subject.

With test tubes, a few reagents, a centrifuge and a microscope at hand, an analysis sufficient for practical purposes can be made in a very few minutes. The best tests are as a rule the simplest, and with a little practice, easily applied. A centrifuge for quickly obtaining a sediment, can be bought for a very moderate price. With these, with a good book at hand a man can soon become proficent in the examination of urine.

If, in these remarks, I have appeared to be talking to students, I have no apology to make. The subject has been, and is now being neglected by many good men.

If from what I have said one man has been stimulated to more careful work along this line, I am thankful.

A Brief Consideration of Adenoid Vegetations in the Pharyngeal Vault.

By B. R. Kennon, M. D.

Now that adenoids have become such a universally recognized affection, it would scarcely seem necessary to refer to this hackneyed subject, but being by far the most common affection of the nose and throat of childhood and the most far-reaching in its results, not only on the respiratory and aural systems, but also on the general nutrition and physical and mental development of the child, it will continue to be of interest not only to the specialist in these diseases, but to all classes of medical men.

This overgrowth of adenoid tissue is associated in about 80% of the cases with hypertrophy of the faucial tonsils, with which it is histologically analogous, and the converse is even more common; in fact, I do not recall a case under fifteen years of age where the hypertrophy of the faucial tonsils was at all marked, in which there was not a pathological hypertrophy of the pharyngeal one.

Among the causes of the development of these growths may be mentioned the lymphatic diathesis, which seems to be particularly marked in certain families, it being extremely rare to see this affection to a greater or less extent, in a single child of a family, of three or four; and by no means an uncommon occurrence to have parents, deaf as the result of adenoids during childhood, to seek relief for their children for the affection under consideration.

By far the largest proportion of these cases are brought under our observation between the ages of two years and puberty, although occasionally we see infants of a few weeks unable to properly suckle on account of this malady and also occasionally grown people in which the growth has failed to undergo its normal atrophy.

It seems that this affection is on the increase even among the better class of the population, and if such be the case I am of the opinion that our over-heated and badly ventilated houses and schools are responsible for not a small number of cases.

Among other causes may be mentioned richets, damp climate, insanitary surroundings, poor food, etc.

Symptoms.—The symptoms which should lead us to suspect adenoids are those dependent on an insufficient supply of oxygen; such as nightmare, teeth grinding, enuresis, frequent colds, purulent rhinitis and nasal voice.

Diagnosis.—The diagnosis is usuallyeasy, frequently being made across the room by the peculiarly dull facial aspect, the thickened oedematous root of the nose and the open mouth.

Besides these the mother will report snoring and mouth-breathing, especially at night.

In a very few cases the growth can be seen extending below the palate and always

on inspection of the posterior pharyngeal wall an appearance will be noted which resembles follicular pharyngitis in adults but which is never present in children except as an accompaniment of adenoids.

But as adenoids is not the only condition which causes mouth-breathing and its accompaniments and as it is frequently impossible to make a post-rhinoscopic examinasion in children we should carefully pass the finger into the naso-pharynx, when the growth, if present, can be felt, thus removing all question as to diagnosis.

Treatment.—The first and most important advice as to treatment is not to put it off.

I mention this because I am so often told by parents that they have been advised to wait until the child is older before having the operation done.

Why such advice is given I am unable to imagine for the ears are in constant danger of catarrhal and purulent otitis media with their complications which may at any time permanently damage the hearing, not to mention more serious effects.

Besides this the general health and mental development of the child is being seriously affected entailing a loss of valuable time at school on account of the child.s inability to concentrate its mind on its studies.

We are also to consider the faulty development of the face, a not unimportant consideration in girls.

There is only one treatment and that is the surgical removal; and the use of all applications, sprays and douches with the hope of contracting the growth is a useless waste of time, cruelty to the child and totally impotent to effect a cure.

As to the operation itself we have first to decide whether to use an anaesthetic and what anaesthetic.

I greatly prefer, and think it is the only way in which the operation can be thoroughly and properly done, is under general anaesthetic, and since children with the lymphatic diathesis seem to be particularly susceptible to the bad effects of chloroform, ether is by far the safer anaesthetic.

My custom is to get the child under to almost the surgical extent, but not quite sufficiently to obliterate the laryngeal reflex when the anaesthetic is withdrawn and the operation quickly done with the Gradle forceps, and Guttstein curette.

After having thoroughly curetted the naso-pharynx the finger is passed in and a thorough examination of the naso-pharyngeal cavity is made especially in the region of the post-nares and pharyngeal openings of the eusthachian tubes and any partieles which have been left are removed with the finger nail.

After-treatment is unnecessary, and I have found that these little patients do just as well, if not better, left alone without subjecting the mother to the trouble, which is often by no means slight, of attempting to spray the nose.

Report of Eighty Cases of Typhoid Fever at Thomasville Baptist Orphanage. *

By C. A. Julian, B.S., M.D., Vice-President North Carolina Medical Society; President Davidson Co. Medical Society, Etc.

Gentlemen:

I want first to express to you my appreciation for your kind invitation to address you on this occasion, and assure you that it is not my object to advance any peculiar ideas, but simply to give facts that can be believed and garner together fresh information and so weave it, not alone to please and furnish it as a new sparkling novelty, but start afresh in our minds a longing for deeper investigation, and a desire to banish from our land this dreadful disease—and still there is something more than a laudable desire to investigate this epidemic. There is a sympathetic, a pathetic side, no words can express it, no pen can describe it. I wish I could picture to you the eighty little feverish fatherless and motherless fellows as they lay contentedly on their fresh white couches, patiently submitting.

If one begins by pitying them, one ends by loving them. There are few who think otherwise of the place than a poverty stricken home. A study of its intent, however, and above all a sympathetic visit made to it reveal quite the opposite picture. "It has been said that the most important study of man, is man. It may be added, the most important period of man's life to investigate, is childhood. Children can be studied more scientifically than adults; they are nearer to nature, and have been less influenced by the evils of the world."

In studying the disorders of childhood, it is extremely important to be familiar with such practice. I will not give you a comprehensive review of the cases, but will summarize in a brief way.

Every case that could not be strictly classed as typhoid fever has been excluded. Eighty cases have been treated in the infirmary. Fifteen cases have been seen by Dr. Montague, twenty cases were treated by Dr. J. T. J. Battle for two weeks and eighteen cases were seen by him in consultation. The total deaths were two, a percentage of 2½%. Of the eighty cases, thirty-seven were males, and forty-three females. The average age of all patients, ten years.

*Read by invitation at the meeting of the Guilford County Medical Society, Greensboro, N. C., December 5, 1904.

The youngest five, the oldest sixteen. By the sexes we have the following mortality: Males, zero; females, two. Both deaths were due to parotid complication. No post-mortem examination was made, anti-mortem examination revealed in each case that both parotids were extensively involved, great swelling, but no pus. There was deep ulceration of the mouth. One of these showed almost tetanic symptoms, and had to be fed through the interstices of the teeth. Although the histories are often incomplete, previous attacks of typhoid fever were not noted in any of the cases. None of the cases were abortive. The course of the disease was a little irregular. None of the cases had hemorrhages or perforation. The temperature was irregular in a great many, but never intermittent, this was due to two facts: First as regards age, and second to the treatment, modifying the fever. Only a few followed closely the typical temperature curve on account of the cold bath.

Children as a rule, show greater departure from the typical typhoid than do adults. One had sudden downward fall of temperature followed by stool with blood streaks, no treatment for hemorrhage was given, but patient was closely watched.

The pulse in majority was out of proportion to the temperature. I found that those children who had previously suffered with intestinal trouble and especially those who were emaciated from special diathesis were sick longer than the robust. Fifteen were examined by the Widal test, and all gave positive reaction. The invasion in the majority was typical except for the sudden high rise of temperature. Only in one was there a pronounced chill, while in many there were slight shivering. The tongue in the majority of cases was typical, though in eight pointed out to me by Dr. Battle, the papillae were not prominent. Two had diarrhoea, the rest were constipated. Rose colored spots were seen in sixty per cent. of the cases. Abdominal symptoms were absent in eight or ten. Two only had diarrhoea, tympanitis occurred in eight. Five had purulent otitis media and also abscess of the left parotid gland. The infection traveled along the Eustachian tube and Steno's duct from a deeply ulcerated mouth. This case had also dry brown tongue, sordes on the teeth, involuntary stools, low muttering delirium, and pronounced subsultus tendinum. Forcible restraint was necessary in one as patient was walking about room in hallucinal manner. Two showed meningeal symptoms. One case uttered a constant automatic cry, his limbs were always flexed to abdomen, and whole body in a state of rigidity. One had a tender painful and swollen leg.

Complications were as follows: Two were complicated with general eczema, one was admitted with uncinaria, one was complicated with bronchitis. One was admitted with recent Colles fracture. One had a peculiar infection of the upper lip, and was badly swollen. One was admitted with grave anemia, one was extremely emaciated before admittance. Relapses occurred in three. Recrudescence in five.

Cause.—I have looked up numerous and valuable contributions on this subject and most writers on the causation of typhoid fever consider the disease propagated by infected milk or water. Naturally I laid more stress on these than any other mode of propagation and upon the appearance of the outbreak closed a suspicious well, then the springs, and gave a general order to drink direct from the deep well which is nearly 900 feet in solid rock. Examination of the milk and water showed no infection, in the meantime the privies were frequently cleaned and disinfected and all stools of typhoid patients disinfected and buried. For years I had been denouncing our box privy system. Dr. Stiles, United States Marine Service, when investigating some cases of uncinaria with me two years ago spoke out strongly against the box privy. I could find no authority to sustain me in the theory that normal human feces could cause typhoid fever, but I was consumed with the idea and really predicted this outbreak in several of my annual reports to the trustees. My greatest dread, however, was that the privies would become infected and pollute our springs. Dr. Frederich P. Henry, of Philadelphia Hospital, believes that the bacillus coli communis, may outside of the body be converted into the bacillus of Eberth and cites Rodet and Roux investigation on that line. Von Pettenkofer traced the great Munich epidemic to Munich itself, as the breeding place and showed that the pollution of the soil of the city came principally from human excrement and middens. It has been made evident that no proper house drainage is possible without rational sewerage system, and in many places where epidemics were frequent subsequent sanitary work changes the hot-bed of typhoid fever and absolutely freed the places from disease, notwithstanding the fact that they still continue to drink from the same wells as before. In Munich the yearly average mortality was cut down from 208 to 40 after the new system of drainage. During the Spanish war there were 2774 deaths from typhoid fever and it was shown by bacteriologists that the lack of common sense hygiene produced the trouble, and that open privies caused more cases than did polluted water. Open privies cannot be

protected from flies and so long as one can get into feces and thence alight upon the first article or dish of raw food that he happens to espy he is in a fair way to present to his host an infected repast. A very careful investigation has proven to us that the epidemic was caused by the privy system, and that the common house fly was the carrier. I also believe that air pollution from the privies produced a slow intoxication, increasing under the prevalence of the cause day after day until a point was reached when health was overcome.

Treatment.—I feel sure that by the skillful use of drugs and other medicinal measures, lives have been saved in typhoid fever and that in this series of cases I hava observed immediate mitigation of the most threatening symptoms, followed by progressive improvement, and am justified in believing that recovery was due to the treatment pursued. I will admit, however, that there is no specific drug or any method yet known that will arrest the course of the disease, but I am hopeful that the day is not far distant when a specific will find its prey. Since it is impossible to arrest typhoid fever or abridge its duration by any therapeutic measures of which we are at present aware, the indication is to sustain the vital powers and to alleviate so far as possible the symptoms. The truth is that nearly every remedy in the Materia Medica has been tried in typhoid fever, so appeal is made to every new remedy as fast as discovered. I have prescribed a new remedy very largely in this epidemic but I am not prepared to say that it was in any way specific. The remedy, however, deserves mention, if only because it is the last used. This is Acetozone, I gave it in every case, in all cases over ten years of age fifteen grains were given by the prescribed method in twenty-four hours, under ten according to age. In forty out of the series, no other medicine was used. In all of the cases I treated, no other antiseptic was used except in eight or ten cases, listerine and calomel. Dr. J. T. J. Battle gave it in majority of his cases, but to some he gave Salol, others nothing but bath, with no appreciable difference as to results. No bad effects were observed from this remedy. I am sure that it exerted a favorable influence upon every case, and my conclusions are that it is a most valuable contribution to the therapy of this disease. No antipyretic drugs were used. I do not favor their use, fearing their well known depressing action on the heart, and in cases treated properly from the beginning they are not necessary. Calomel was administered at an early period of the disease in every case to procure free purgation and also for its intestinal antiseptic effect. Alcohol and strychnia were given to meet special indications. Parotitis was treated symtomatically and surgically. Incidental or collateral symptoms were treated as they arose.

For the control of the pyrexia I used ice caps and the cold bath. The employment of cold in the treatment of typhoid fever in childhood demands a degree of caution. The cold application is in proportion to the extent of surface to be cooled. The effect is more prompt and decided, the disturbances of circulation are greater, and reaction is more tardy. The effect of the bath was decided, the fall of temperature was generally about two degrees in twenty minutes. As a rule after four or five baths were given a striking modification of the whole clinical picture was seen. The mind became bright, headache ceased, the tongue rapidly cleaned and the appetite increased. The pulse reduced in frequency and increased in tension. The Brand method was not employed as it involves discomfort and suffering in children, but a more conservative plan was followed. The bath point at first was 101 but afterward was changed to 102.

Our method of bath is as follows: Sanitary bath was given every child each morning, regardless of temperature. This consisted simply of tepid water and soap, followed by brisk toweling and an alcohol sponge. Clean towel was placed under the chin of each patient to keep the bed linen perfectly sanitary, the mouth of the patient was then thoroughly washed with a disinfectant and patient allowed to rest. When the bath point was reached, we gave what we termed the bed bath. I will state briefly its technique: The patient is made nude except loin cloth, a rubber sheet the size of the single bed is slipped under the patient and a towel is immersed in cold water and wrapped around his head. A large bucket of water, varying in temperature according to condition of individual patient, is placed on a stool beside the bed. A large sponge is used to drip the water over the entire surface and when the trough is full of water, patient is carefully turned on his side and the spinal column and back are thoroughly sponged with long strokes. At the end of ten or fifteen minutes all the water is sponged out of the rubber trough back into the bucket, the patient rubbed thoroughly with alcohol. The rubber sheet is withdrawn, ice bags are placed on abdomen and head and the patient is then snugly but lightly covered.

I have gone over this series of cases rather discursively and touched upon very few of the salient points and while I have told you little that you were not already familiar

with, I want to impress the fact that we should press forward in the hope of ultimate success in finding out a specific remedy or serum for this disease.

The Corset.

By Cliver Hicks, M. D., Henrietta, N. C.

Gentlemen of the Rutherford County Medical Association:

At this time when careful study and scientific research by members of our profession, is being devoted to the investigation of the causes and prevention of disease I trust reference to a source of suffering, deformity. torture and death, may not be uninteresting to the Society.

Of all the implements which millinery strategy and ingenuity have devised in their reckless attempts to please the devotees of fashion, they have produced nothing that approaches the corset, in power for causing incurable evils. We must regard the chest as a force pump of most powerful and perfect construction, and as a bellows that must expand and contract in all directions in order that the all-important functions of the lungs, heart, and great blood vessels can be performed. The free and untrammelled movements of the ribs, sternum, diaphragms and everytmuscle, ligament and tendon, that enter into the construction of the thorax is imperatively necessary in order that the functions of the heart and lungs may be normally discharged. These great vital organs, so wonderfully endowed with both voluntary and involuntary functions, of primary importance not only to good health, but to life itself, are placed within the chest and cannot discharge their functions, naturally, unless all the tissues can have free, easy and unimpeded movements. Complete expansion of the ribs and sternum, at each inspiration is necessary or the lungs cannot expand to receive the veinous or impure blood which the heart sends to them, to be freed from impurities, and receive its supply of oxygen, the supporter of life.

Any device that interfers with the full expansion of the chest, prevents or impedes the expansion of the lungs, and they cannot receive, purify, and enrich the blood at each inhalation, as they should do, nor can the heart act with full force and send the blood to all the tissues.

If the object of the inventor of the corset had been to devise an apparatus that would embarrass the action of the heart and cut off the supply of air from the pulmonary vesicles, that object could not have been attained more completely, nor could he have devised anything capable of doing greater damage to all of the vital organs.

I regret that I have seen no literature upon the subject, nor have I had the benefit of post-mortem research. I am, therefore, dependent entirely upon clinical observation for the knowledge I possess relative to the baneful results of habitual wearing of the corset, or other device that interferes with free movements of all the tissues that enter into the anatomy of the thorax. The great degree of suffering, deformity, and injury to the constitution, brought on by its use, demand that measures be taken to stop its ravages, and while we of the medical profession have no official channel through which to act effectually in the matter, it will be through us, if any measures are adopted, and then only in the way of gratuitous advice, without hope or prospect of pecuniary reward.

That the corset is ruinous, not only to the wearer but to her offspring also, was proven by the researches of the French Academy of Medicine. The investigations of that great scientific organization developed the facts that wearing corsets and laced jackets had deformed and distorted the frames of French women and displaced and deranged their vital and generative organs to such an alarming degree that the victims were deemed incapable of propagating their species. They also found that married women of France averaged only two children each, a large majority of them being weakly or deformed, or both. They also showed that France was drawing her population, largely from other nations, with a very small proportion from the native race. Under such circumstances the French Corps Legislatiff were readily induced to impose a fine, or penalty, or both, upon any woman under thirty years of age for wearing a corset or other device for compressing the chest or waist.

The researches of the French physicians developed the fact that normal gestations were very rare among the wearers of corsets, their parturitions were more tedious and attended with much greater danger, with unnatural and untoward conditions complicating the puerperal period. Their off-spring was found to be frail, sickly, and often inheriting deformities from the self-mutulated parent.

Very early in my professional career my attention was directed to the subject of compressing of the chest, and I have given it careful study. I have oxamined a large number of girls, and older women, for various symptoms, aches and pains, that could be attributed to no other cause than compression of the chest with the corset or laced jacket. Many cases of obliteration of the air vesicles of the apex of the lungs, palpitation of the heart, obstinate habitual con-

stipation, derangement of the stomach, torpid liver, profuse leucorrhœa pelvic derangements as cervicitis, endometritis, perimetritis, ovarian disease and uterine malpositions have been traced to compression of the chest and arrest of its physiological functions by the corset, in the absence of all other causes. I have examined a large number of women whose ribs were pressed downward, to nearly a vertical line, with their cartilagineous ends stiffened and hardeded, pressed inward upon the stomach and liver with the sternum wrenched upon itself so as to present an edge so the front. I can now recall cases in whom the stomach was forced downward to a position at least two inches below the normal site, with the intestines occupying the hypograstrium and upper pelvic space. This deplorable condition was caused by the evagerated descent of the diaphragm at each inhalation made necessary by the inability of the chest to expand in other directions. It is easy to imagine the diseased condition of the pelvic organs with the abdominal viscerd so displaced, with their functions almost destroyed. Some of the most intractable cases of uterine displacements, cervicitis, endometritis ovarian diseases, etc., that I have ever met with could be traced to no other cause than that of habitual interference with, or arrest of, the functions of the thorax by wearing the corset.

I have many times been consulted by the anxious mother relative to her young daughter's sick headache, weak aching, trembling back, painful thighs, and weak knees, dragging pains in the abdomen and pelvis, painful, scanty, or suppressed menstruation, deranged digestion, and many other distressing symptoms, that after diligent investigation I could assign to no other cause than wearing corsets. Examinations of such subjects reveals a bony fleshless spinal column, distorted, immovable ribs, from which the muscles, adipose tissues, etc., have been absorbed by pressure of the corset. The dry, husky, bloodless skin, flabby, pendulous breasts, prominent clavicle, bony angular shoulders, shapeless stringy neck, and the pale bloodless expressionless face, the displaced and compressed stomach, intestines, liver, kidneys and generation organs, is to be attributed to compression of the chest, and arrest of its great functions by wearing the corset.

Apart from its ruinous effects upon the health and physical development of our women, I am convinced that wearing corsets unfits them for the ennobling, the sacred functions of gestation and maternity, and I have proof that they transmit frightful evils to their offspring. These women express horror at the mere mention of the Chinese women's compressed feet, the African's nose ring, or the South Sea Islanders blackened teeth, all of which customs are harmless and insignificant compared with their own self-inflicted deformity, torture, disease and death.

It is painful and humiliating to reflect upon what our American women could, and should be, but for this senseless, damaging customs that the votaries of fashion have inflicted upon them. It is sad to observe with what unquestioning faith and tenacity they cling to the belief that milliners, with tight lacing devices, steel, whalebone, cottoa and sawdust, can improve upon the exquisite lines and graceful curves with which the "Supreme Architect" has endowed the female figure.

If we would see our American women the most beautiful on earth, lythe, active, erect and graceful, vigorous with health and strength, and see them transmit to posterity the priceless heritage of perfect form, health and intellect, we must adopt measures to stop the monster evil of destroying the movements of the chest, thereby damaging every vital and procreative organ of the human body.

The Humanity of Surgery. *

By H. A. Royster. A.B., M.D., Raleigh, N. C., Professor of Gynecology and Dean of the Faculty, Medical Department, University of North Carolina; Gynecologist Rex Hospital; Surgeon-in-Chief St. Agnes' Hospital; Surgeon to the Southern Railway.

In the beginning of our science, the surgeon was looked upon as a mere mechanic. The very derivation of the term surgery, or chirurgery, from two Greek words, meaning "hand-work," signifies its earliest application. The surgeon was the barber—not above the rank of a blacksmith or a horse doctor—and was regarded as of a lower order than the physician, under whose guidance he acted. We have not yet entirely outlived this impression, for even at the present day it is held by some that it requires a higher degree of intellectual capacity and a sounder judgment to be an eminent medical practitioner than it does to be a great surgeon. Further still, the surgeon is called "a butcher;" they say "he loves to cut;" he is commonly spoken of as "a man who thinks no more of operating on human flesh than of sawing on so much wood." Perhaps these criticisms are natural, surely not just. In many quarters little has been done to counteract such impressions, but civilization is solving the problem for us. Who does not now know

* Address delivered before the Seaboard Medical Association, Washington, N. C., December 7, 1904.

that the surgeon shares equally with the physician the responsibilities of diagnosis and after-treatment as well as shouldering all the burdens connected with operative technique? The modern surgeon who is not skilled in clinical diagnosis, fails to measure up to the standard set up by his advancing science. Moreover, he who is lacking in knowledge of disease and the use of remedies, will certainly never ripen into full greatness. This is well expressed by Ashhurst: "The importance and even necessity of a thorough knowledge of practical anatomy, can, indeed, scarcely be overrated; yet, it is more essential for the surgeon to be well versed in pathology and therapeutics (or, in other words, to be an accomplished physician), than it is for him to know the attachments of every muscle in the body, or all the possible variations of arterial distribution." Let no one suppose that here is a plea for granny methods at the expense of scientific surgery. It is but the blending of mind and hand, the joint partnership of judgment and action with proper faith in each. Without going into eulogies of the magic-touch and fevered-brow type, we can truthfully confess, believe me, that the great surgeons of the generation just preceding us were men of power and that they deserved more credit for the results they attained than do we for the success we have achieved. They helped us to grow out of the mechanic into the modern operator; from the bone-setter to the diagnostician. And they have left us much to emulate.

"We think our fathers fools, so wise we grow;
Our wiser sons, no doubt, will think us so."

One of the common conceptions of surgery is that the knife is considered its symbol. That most dreaded of all instruments is taken to typify the whole surgical art and such expressions as "going under the knife," "nothing but the knife will do," "he'll have to be knifed," etc., are frequently heard, both from the laity and from medical men. The peculiar feature of it all is, that the knife while, of course, one of the most important is really used less than many of the other instruments. A man of stern countenance, brandishing the scalpel would not be a true picture of the surgeon; rather should be represented with a hand full of hemostats or a needle and thread, instruments no more material, yet requiring greater ingenuity and far less gruesome. Besides, there are many operations done wholly without the knife. After all, the singling out of this alarming implement as the popular embodiment of the surgical art is but a sign of the fascination, for most minds, of the terrifying and the dramatic. In this instance the opinion smacks of the day when the surgeon was the barber—a veritable relic of *barberism*.

The good surgeon, then, is a good physician and all that this implies. One's definition of the term must be set in the broadest mould. No mere dose-giver or head-rubber; no fearful or timid man, no time-server—none of these need apply. Neither is there room for the so-called "successful" or "leading" doctor, who obtains his success or lead through a blind belief in the *vis medicatrix naturæ*. In the last analysis, we must all trust that beneficent force, but you should not let that maxim haul you around by the nose. Success means how much of good you can do, how much better you can make the world for having lived in it; not how little you can accomplish and still exist, not simply a negative life plus the luck of circumstance. There should be no half-heartedness about this physician side of the surgeon. It is just as necessary for the medical man to be bold, positive and resourceful as it is for the surgeon to possess calm judgment, and to temper his opinions with that conservatism which must not be confounded with timidity, but which is the natural expression of the judicial mind. Such a poise can be acquired only by looking at both sides of every question. For the surgeon we can quote a remark of one of our greatest authors: "It is not always true that, because an operation can be done, it ought to be done." And to the physician, let us repeat the axiom of Kocher: "It is not necessary for every practitioner to act surgically, but it is imperative that he should learn to think surgically."

To as great a degree even as the physician, it falls to the lot of the surgeon to pay humanity's debt by giving of his time, knowledge and labor for the benefit of the unfortunate poor. Possibly his work is done at a larger sacrifice than that of the general practitioner, because modern operating unquestionably consumes time and demands enormous physical exertion. Let us not boast, however, of being more charitable than others, but rejoice instead at the richer opportunities presented to us. Is it not a beautiful ideal to have the world say of each one of us:

"And well he knew to understand
The poor man's cry as God's command?"

Mawkish sentimentality holds no sway over such feelings. To know that you have saved the life of one of these by your own hand is a compensation beyond and above any extraneous reward. Such is the tribute of science to humanity.

And this consciousness of having directly rescued or prolonged the lives of one's fellow creatures is the humane inspiration of the healing art; but, perhaps, in no other

branch of the profession is the relation of cause and effect so manifest or the personal responsibility so obvious as in surgery. A case may be treated for weeks and months medicines administered, and the patient managed with consummate skill; he may be carried over difficulties and snatched from dangers—and yet, so many factors enter in as to preclude us from saying that any one dose turned the tide or any one act alone produced the result. Not so with the surgical case. In every operation a life is immediately at stake and the operator himself is the accountable actor. The very risk is fascinating and, therefore, the gratification greater. To remove a tumor, which is slowly, but surely, killing the sufferer; to evacuate a pus collection, breeding poison and death; to correct a deformity and see the joy over the outcome; to ligate a bleeding vessel and thus actually keep life's blood in the body—no human feeling compares with these sources of profound mental satisfaction, which are the surgeon's daily heritage.

There are many diseases that are purely medical in aspect, there are some in which both the physician and the surgeon are needed, and there are others amenable alone to surgical treatment. The latter class is rapidly enlarging. First the pelvic organs, then the vermiform appendix and the gall bladder and later the stomach have been taken from the hands of the internist and a rational basis of therapeutics established through the researches of the surgeon. Mayo called attention to this vividly in a recent address*: "The post-mortem has been an institution for years, yet what did we know about appendicitis until surgery led the way, or about gall-stone disease, supposed to be an 'innocent post-mortem finding,' until operation opened up the field? Did knowledge of extrauterine gestation come from the autopsy? By no means. It was through the surgeon's knife * * * The surgical borderland of to-day lies in the upper region of the abdomen, a locality until recently considered almost purely medical * * * ."

Those who practice surgery are either ennobled or degraded by it. Their characters are developed and sweetened or else made coarse. Looked upon as so much slashing, surgical operations do but brutalize those that perform them; viewed in the light of God-given occasions for exercising skill and healing humanity, they are the means of uplifting and purifying. The heroism frequently exhibited by patients must have its effect upon the surgeon's character. Who can behold uninfluenced a calm mental and moral attitude toward physical suffering? Who of us has not seen the sufferer himself do his part as well as we did ours and sometimes surpass us in courage? To have ministered to one of these is worth a life-time of worry. With the well-poised surgeon this reflection of the humanity of his patient will detract in no degree from his boldness or self-control. It should rather give him more sensible consciousness of the right and a larger conception of his duty to do it. After all, "nerve" may be defined as knowing what you are doing. An operator, who possesses that confidence born of intimate knowledge of his subject, feels at home under all conditions and every surgeon approaches with less dread operations with which he is familiar. Mere assumption of bravery is a counterfeit; recklessness is not "nerve."

The renowned Valentine Mott, in his later days, stepped into the amphitheatre where one of his younger colleagues was doing a herniotomy and saw him theatrically cut through the tissues down upon the sac. The old surgeon exclaimed, "The Lord save the man," and walked away from the table. Glancing back again, after a few minutes he remarked: "He did."

To be of the most potent avail, the aid of surgery must be invoked in due time. As a last resort it may furnish a ray of lingering hope—blessed oasis in the desert of trouble; and wise is the surgeon who knows when to press and when to withhold his hand in humanity's cause. Too late—these words express the saddest of all thoughts in the English language. In surgery they mean hopelessness, despair. Operations done too soon are curiosities; operations done too late are the common reproach of our art. All the humane instincts of our nature demand that a disease dependent upon surgical treatment be submitted to such procedure at a time when the conditions are promising for a successful issue, not temporized with until the last chance is passing away. Do not allow the disease to kill the patient before the operation can save him. Keep it ever in mind that surgical mortality is owing chiefly to havoc wrought by the pathological changes already present and only in comparatively rare instances to the operation itself. It is humane surgery, therefore, to operate when a life can be preserved and not to dally until it is placed in jeopardy.

Let us feel, then, that in the practice of surgery there are conditions calling for the exercise of a larger and deeper portion of humanity than the surface markings seem to indicate. The key-note of surgery is hopefulness, or, as expressed by another, "magnificent optimism," and its devotees constantly exhale this spirit. It is unjust to

* W. J. Mayo, Jour. A. M. A., June 11, 1904

think of the surgeon as one who "loves to cut" at all hazards, who puts the operation above the result and who cares not for consequences. The very essence of our calling directs us to strive for permanence and perfection. Humanity teaches us that it is an exalted privilege to relieve suffering; it also bids us know that it is much nobler and more merciful to permanently cure the complaint. Surgery's mission is to heal, to restore, to remove forever the offending lesion. Should there be recurrence or ill consequence art and science have failed. Failures there will be—and where are they not found? But how few are these when a thought is given to the enormous numbers of operations performed daily throughout the whole world!

Note on Chalybeate Therapy.

By William Krauss, Ph.G., M. D., Memphis, Tennessee.

There have been volumes written on chalybeate therapy and the controversies upon the absorbability of this or that form of iron have occupied the attention of clinicians for many years. Among the many preparations claiming the attention of clinicians the one devised by Dr. Gude, chemist, of Leipzig, has received the endorsement of the ablest men on both continents for ten years. The writer had used it to the exclusion of all others, with the exception of a few disappointing experiments with others claiming equal merit, and has published two papers upon the subject.

It would seem that when one has used a certain medicament for years and with mainly uniformly good results, and especially if this agent definitely eliminates the shortcomings of formerly employed products of the same elements, one is apt to take its effects as a matter of course, and further discussion would seem useless, or at least superfluous. When it happens, however, as is usually the case after a certain article has had a successful career, that many similar products strive to take the place of the original, generally resulting in disappointment to the user, it becomes a duty to take stock of the evidence in the case and see how far the confidence in the one and the distrust of the other is justified.

For this reason I have had compiled from separates and reprints some of the results of a few trustworthy observers

1. Secondary Anemia.—H. D. Peterson, (Chicago Medical Recorder, 1896) treated many cases, reporting five in detail and says: "It is easily absorbed by the digestive tract without any disturbance of the same, is not injurious to the teeth, and produces no constipation."

Dr. J. W. Frieser, Vienna, (Therapeutische Monatshefte, February, 1902) reports treating many cases, among which he made detailed studies upon 43 cases and summarizes: "It can be warmly recommended for extensive use in the treatment of anemic conditions."

Dr. Hugo Summa, St. Louis, (N. Y. Medical Journal, 1895) recommends its use after tests in 34 cases, saying: "It is especially worth mentioning that no bad after-effects could be detected. In this connection I call special attention to the absence of constipation that could be traced back to the use of this preparation."

Dr. Sam Wolfe, Philadelphia, reports upon about 50 cases observed during about four months and concludes: "That Pepto-Mangan is a highly available preparation of iron, on account of its liquid form, pleasant to taste, non-corrosive action on the teeth and unirritating effect on the digestive organs, admitting thus of easy gradation of dose, easy administration to children and avoidance of unpleasant effects in all cases. That it is an efficient and rapid restorer of the normal quantity and quality of the blood, etc."

Dr. Fritz Euler-Rolle, Vienna, (Wiener Klin. Rundschau, March 29, 1903) mentions 14 cases of anemia, besides a number of cases of other diseases in a very complete report in which he is pleased with its absorbability and (on account of the abundance of peptone it contains) its food value in delicate stomachs, and finds it free from all the objections usually urged against iron preparations, and its results prompt.

Dr. C. A von Ramdohr, (N. Y. Med. Journal, June 26, 1897) in connection with some gynecological cases reports seven cases of anemia, in which there was a rapid improvement.

Dr. H. P. Loomis, in a paper before the New York Academy of Medicine, (June 18, 1893) reports a number of cases, eight in detail, in whom there was a rapid increase in red cells and hemoglobin, and in most cases with no constipating effect.

Drs. Diago and Bonitez, Superintendent and Chief of Laboratory, Hospital No. 1, Havana, Cuba, (Progreso Medico, Havana, April, 1902) report six cases in detail and summarize as follows: "We may say conscientiously that it is the best remedy we know of for the purpose, and that we do not hesitate to commend it to the profession, especially our confreres in Cuba, as an iron preparation that possesses all the advantages that can be demanded of such a remedy and none of the disadvantages that are characteristic of other iron preparations. We would especially emphasize also that Pepto-Mangan Gude is very pleasant to the taste, and is most easily taken by patients

of all ages and with the most delicate digestions."

Dr. Juan Pablo Garcia, Havana, (La Revista Medica Cubana, August 1, 1902) says: "I have had the opportunity of testing the efficiency of this preparation of iron in a large number of cases in both hospital and private practice, and have found it the most satisfactory iron compound that has come under my notice. It is not at all constipating, its taste is not astringent, so that it lacks the great disadvantages of most other iron compounds." He says further that it causes no disturbances of digestion and its therapeutic efficiency has been attested by the best clinicians throughout the world.

Dr. Louis J. Gravel, Physician-in-Chief to the Hotel Dieu, Montreal (Buffalo Med. Jour., August, 1903) prefers the term dysemia, meaning 'bad blood,' reports 13 cases with blood examinations and says: "Comparing my results with Pepto-Mangan (Gude) with those obtained from other chalybeates of this class, I have been led to give it decided preference."

Drs. Chibas and Geo. A. de Santos Saxe, of Columbus Hospital, N. Y., (Int. Jour. Surg., June, 1903) report 40 cases with tabulated results and complete bibliographic review (which has facilitated this compilation very much) and say they have used it in the hospital for over two years in anemic convalescents with uniformly satisfactory results; "In no case did constipation, nausea, headache, or digestive difficulties follow its administration."

Dr. Hermann Metall, Assistant Physician at the General Polyclinic, Vienna, (Med.-Chir. Centralblatt, January, 1902) reports 23 cases of anemia consequent upon a variety of conditions, of which 12 showed a normal hemoglobin per cent after 14 days, 5 after 3 weeks, and 5 after a month. He concludes that it is "a reliable and valuable blood-building remedy, which can be recommended for general use in appropriate cases."

Anemia Consequent Upon Special Conditions.—Dr. Mateo M. Guillen, at Randall's Island Children's Hospital, gives a tabulated report of 32 cases of infantile anemia with very elaborate blood chart, including some very desperate cases of cachexias and says: "In no case did we have to suspend treatment on account of any untoward influence on the delicate organisms of sick infants." Three cases classed as hopeless made a complete recovery. The paper is very instructive.

Dr. J. M. Frieser (vide supra) also reports great success in infantile anemia.

Dr. J. K. Bauduy, (St. Louis Medical Review, February 26, 1898) reports upon a number of cases of neurasthenia, 12 of them in detail, with blood examinations by Dr. Carl Fisch, and says: " * * * the results, however, were indeed a surprise to myself, for the concomitant deranging sequelæ were so slight that, but in very few instances in my extensive utilization * * * was I obliged to discontinue it. * * * this particular remedy, I am now convinced, will prove a great boon to the patient and the physician. * * * of course we do not consider the the remedy applicable to cases of lithemic neurasthenia, nor in any manner a specific in any variety of neurasthenia."

Dr. Ludwig Pohl, City Physician, Vienna, (Aertzl. Centr. Anzeiger, September 20, 1899) has used Pepto-Mangan (Gude) in over 100 cases of chlorosis, anemia, neurasthenia, hysteria and malarial cachexia and says: "I have previously mentioned that it may be positively assumed that Pepto-Mangan (Gude) stimulates the hemopoietic organs to increased activity * * * Decided amelioration in the leukemic state, arrest of the process in severe cases for a long time, reduction of the glandular swellings, improvement in the relation between the red and white corpuscles, were noted by me in several cases."

Dr. J. S. Perekhan (Chicago Clinical Recorder, 1896) reports a number of cases, six in detail; Dr. C. A. von Ramdohr (vide ref. supra) 12 cases in detail; and Dr. Gellhorn, at Mackenroth's Clinic, Berlin, (Therap. Monatshefte, 1897) mentions 60 cases, some in detail, all of gynecological patients with a variety of conditions, some post-operative, and all testify to the improved blood findings, Dr. Gellhorn concluding as follows: "I feel justified in asserting that in my therapeutic trials with Pepto-Mangan I obtained all that can be rationally demanded."

In surgical conditions calling for improvement in the blood, Drs. Stuart McGuire (Virg. Med. Semi-Monthly) 20 cases, and Geo. G. Van Schaick (N. Y. Med. Journal, June 2, 1900) 50 cases, report favorable result. The latter concludes: "We have in such a preparation as Pepto Mangan (Gude) a means of obtaining good results with a certainty that is almost mathematical, and without any of the distressing symptoms so frequently following the use of the inorganic iron preparations."

Dr. H. Edwin Lewis, Burlington, Vt., (Vt. Med. Monthly) Dr. Ed. C. Hill, Denver, Dr. W. O. Davis, (N. Y. Int. Journal Surg., September, 1902) together with some of the author's already mentioned call especial attention to the value of the preparation in irregular menstruation, sterility and other sexual anemias in women.

Dr. Karl von Ruck, (N. Y. Medical

Journal) finds in Pepto-Mangan (Gude) the best preparation in the anemia of tuberculosis, being more efficient and more easily borne; he had used it in 70 cases, 12 being reported in detail, in some of which comparative tests were made with other iron preparations. Other observers also mention it in tubercular anemia.

Cachexia finds especial mention by Fritz Euler. Rolle, Pohl, and Xasano, the latter, professor at Royal University, Naples, (Arch. Int. di Med. e Chir., March, 1899) discusses iron medication in detail, calling special attention to the chemistry of the subject and reports having treated primary anemia, 20 cases; chlorosis, 25 cases; malarial anemia, 7 cases; tubercular anemia, 8 cases; uterine diseases, 11 cases; scrofulosis, 12 cases; rachitis, 10 cases; convalescents of exhausting diseases, 15; total 108 cases. He says: "To recapitulate, 'Gude's Pepto-Mangan' not only deserves the place it has already acquired in therapeutics, but it merits even greater recognition, because all clinicians ought to make use of it in pathological processes in which the object is to restore to its normal condition the altered quality of the blood."

After this array of evidence it is only necessary to add that since this constitutes about all the clinical literature upon which our knowledge of the subject is based, it is rather significant that it was all done upon this particular product. In no instance is it claimed that the preparation is as good as something else, but it is simply set forth by the observers that this was the preparation used and that it met these indications in the manner described. Since there is no official preparation that meets these requirements the manufacturers of Pepto-Mangan (Gude) deserve all the credit which the product has earned for them.

Eyestrain.

By Clarence Porter Jones, M. D., Newport News, Va., Fellow Medical Society of Virginia; North Carolina State Medical Society; Seaboard Medical Association; Elizabeth City County Medical Society; Secretary Newport News Medical Society; Visiting Oculist and Aurist to Newport News General Hospital; The Dixie Hospital, Hampton; Specialist to Hampton Normal and Agricultural Institute; Consulting Oculist and Aurist to National Home for Disabled Volunteer Soldiers, Elizabete City County, Va.; Expert Examiner United States Bureau of Pensions, Etc.

Realizing that the subject magnitude as to wear out the patience of the average body of men who do not devote their energies to this field of labor, I will be brief, and not bore you with unnecessary remarks.

The constant increase in bulk and hours in the school courses of the nation has had its telling effect on the nervous system, causing an enormous increase in the use of headache tablets, powders and all sorts of nervines.

Scientific investigations along this line have been productive of abundant fruit. The human eye being the most complex organ, its perfection being most necessary to the physical, mental and moral welfare, the importance of labor in this field cannot be easily over-estimated.

The emmatropic or normal eye sees distant objects clearly without the aid of its accommodation. The healthy emmatropic eye can see near objects clearly also, without artificial aid, as nature has provided for the same in furnishing a ciliary muscle to control the degree of convexity of its lens. This eye will never need artificial aid until presbyopia arrives, when a convex spectacle lens increasing in strength with age should be worn.

The ciliary muscle is intended by nature to be used only to focus near, or divergent rays, and never to be used in focusing distant or parallel rays. Eyestrain, practically speaking, is the effort an eye exerts through its accommodative apparatus in focusing parallel, or distant rays of light on the retina. We have assumed in our definition that this has only to do with distant vision. The near vision being cared for by nature when the eye has been made artificially emmetropic, by the use of the proper glass. The hypermetropic, or misnamed farsighted eye, as we see has to strain itself to see distant objects clearly, which the emmetropic eye sees at rest. When the hypermetropic eye sees near objects clearly, it has to add to the accommodation necessary for near vision the abnormal accommodation or strain, it uses for distance. Thus its ciliary muscle is in a state of constant work, or activity; a condition in which no other voluntary muscle is allowed to be. Thus a law of nature is broken and retribution is inevitable. The above remarks being only referable to plain spherical errors, the more hurtful error of astigmatism will be mentioned later.

Gould says: "We have to walk heedfully in this dangerous road. For the unegger-ated and brutal fact remains that at least 25 per cent. of modern civilized people are to-day suffering from the ocular and systemic effects of eyestrain. Most all of the headaches in the world, and of sick headache, is absolutely due to that cause. A very large part of the hysteria and neurasthenia springs from it; and also billiousness, anorexia, nervousness. Every one of the hundred different organic diseases may find

* Read before the recent meeting of the Virginia State Medical Society.

a foothold through the eyestrain, which lowers the general vitality."

The results of morbid oculor function cannot be borne by the eye, because of its value to the very existence of the organism. Nature goes to work and appropriates these results elsewhere. The great part of the explanation of reflex ocular troubles is, the necessity of nature to preserve the usefulness of the eye, and as far as practicable keep it free from inflammation and abnormal appearances. Thus the influence of eyestrain is more often undetected by the profession, and surely so by the lay mind. Any other organ in nature is more apt to pay the penalty. The reflex vicarious suffering attacks wherever there is the least resistance, as brain, muscle, viscera, etc.

Of the great catalogue of ills and conditions mentioned as caused by eyestrain, I need mention but a few which are obvious to every one present, as headache, insomnia, nervousness, migraine, vertigo, digestive disturbances, chorea, petit mal, hysteria, epilepsy, neuralgia, morbid impulses, etc.

Recent reports of the examinations of inmates of inebriate and reformatory institutions, fearful percentages of refractive errors were found, mostly such errors as would unfit the sufferer for skillful art work, forcing him for amusement to follow habits of slothfulness leading to crime.

Epileptics have been examined by many investigators of late years, to be found too, that they are nearly all sufferers from refractive errors, and that about one-half their number have unsymmetric astigmatism, which is of itself the most baneful of errors.

Says Gould: "The human brain is fundamentally a great storage battery, capable of secreting and then releasing great reserves of force in any way at the direction of the will and circumstance. Epilepsy, chorea and nervousness are the useless, unmotived, and morbid releases of these stored batteries of nerve force. To meet the exigencies of life the storage must continue. The disease is the pathologic release. The cure is preventing the over-storage and weakening of the sluicegates, which allows the epileptis, choreic and nervous drowning of the lower valleys with the disastrous flood.

We should watch the odd, and peculiarly disposed children, the developing crank, an examination of them for refractive errors will often show the trouble, which can be prevented from progressing into positive insanity. The importance of this is not to be poohed at by the profession or the laity, lest direful results ensue. Look at any case of high degree astigmatism uncorrected; unless you have a drone for a patient you either have, or sood will have a nervous wreck, or possibly a lunatic.

The eye is the most kind of all organs, as it will be imposed upon and badly sleighted often for years without murmuring. An eye will wait years for an astigmatic lens, or for the removal of a cataract, and immediately functionate when the remedy is applied. This cannot be said of any other organ.

The refractive error should be diligently sought, and thoroughly corrected by the use os the proper glass. If the patient is under forty years, a mydriatic should be used. As no ciliary muscle can be made to relax by any known mechanical method. No refraction is better than inaccurate refraction. Astigmatism being malcurvature of the cornea, even though it be a slight degree, it produces an unnatural strain on the ciliary muscle at the opposite axis, which is a double breakage of nature's laws. This strain is occasioned by the effort of the eye to see objects clearly.

As the muscle is accustomed to unnatural strain, and is perhaps hypertrophied in two segments, it usually takes it two weeks to get accustomed to even the accurate refractive lens. For this reason the glass which is the proper one to be worn is not usually the one which, at first, gives the patient good vision. He having to be repeatedly encouraged by the physician lest he be discouraged, and cast away his best friend, which would prove itself so, if he had only given it a fair trial.

On the Etiology of Variola.

By James W. Hunter, Jr., M. A., M. D.
Norfolk, Va.

The recent epidemic of variola has served to awaken an interest in its origin. Numerous cases in quarantine and detention hospitals have been watched in the hope of finding out more of its nature and treatment. Nor has the interest been confined to the pathologist. Municipal boards have rendered valuable assistance. Thus it is that Western Reserve University is indebted to the Health Department of Cleveland, and the Harvard Medical School to the City of Boston.

While success was not vouchsafed to the Cleveland investigators, they have done work no less valuable. They have proved conclusively that the exciting cause of variola cannot be a bacterium; and, further, neither are the various parasites so far described. Thus Ferroni, Massari, Huckel, Ewing, Borrel, Park, Dombrowski, Funk, Ishigami, and Reed are in error.

The results of cultures upon gelatine, agar, etc., from the pustules of variola, as well as from blood obtained from such patients, have been invariably negative. Inoculations of animals by the filtrate from

the pustular contents being passed through the Chamberland or Beckfield (No. 8) filter were likewise negative, though the unfiltered serum always reproduced the disease. Thus it is shown conclusively that if the disease be caused by a bacterium, that bacterium is too large to pass through the filter; and, further, that no known culture material can reproduce it, nor is there manufacted an enzyme. Thus we are forced to the conclusion that the infecting agent belongs to the class of animal rather than of vegetable parasites. With this conclusion, the Harvard investigators proceeded to study the subject by sections of the lesions made at various stages of the disease, and to make photo-micrographs of them. In this they have been successful.

The lesions of variola are confined almost exclusively to the Malpighian layer of the skin. Some investigators have, in addition, described a fatty metamorphosis of the liver, an interstitial nephritis, an orchitis, a bronchitis, an enlarged spleen, an oedema of the lungs, and a broncho-pneumonia. In 33 out of 40 cases autopsied, Perkins and Pay found an involvement of the larynx and trachea. But, to quote these same authorities, "the lesions found at autopsy are simply those of any acute infectious disease."

Thus the lesions of variola are confined to the Malpighian layer of the skin. These are of an eruptive character, gradually increasing in size and number, and finally healing. A desquamation then ensues. Clinically, four periods are recognized, the macule, papule, vessicle and pustule. Histologically, however, they are best considered as early, middle, and late vessicle, and pustule.

There is a serous effusion into the middle area of the Stratum Malpighi, pushing apart the cells and forming a cavity. This is the early vessicle or macule. Gradually, however, the cavity increases in size, and there is a distension upward; at the same time other vacuoles occur. Here is our middle vessicle or papule. The cavity still increases; more and more vacuolation results, with a still greater distension upward and a necrosis of the epithelium, the process extending downward as far as the corium. But, mark you, the corium is not involved. The late vessicle (or, in the clinical nomenclature, the vessicle) is thus formed.

The process continues. There is more and more necrosis of the epithelial cells involved and the formation of the bands or strings connecting the stratum corneum with the corium. This tends to produce the characteristic umblication. The serous effusion becomes now of a puriform nature, the cavity being filled with epithelial debris and a quantity of lymphoid and plasma cells. At the same time a general lymphoid and plasma cell invasion takes place in the corium. This is the pustule; the lesion is now complete. Repair takes place in the usual way. The contents of the pustule tend to dry up, the lymphoid and plasma cell invasion gradually subsides, and epithelium growing from either side again covers the denuded corium. The continuity of the stratum Malpighi is thus again restored, and a desquamation follows.

In the lowermost cells of the stratum Malpighi of the early vessicle there will be found a number of ovoid bodies. These, the so-called vaccine bodies, lie within the protoplasm of the cells, being from one to four micra in diameter, and, in the ordinary haematoxlyn-œsin staining, appearing red. Their true nature has given rise to much speculation. Ewing, indeed, had regarded the containing cells as phagocytes and the bodies themselves as broken down erithrocytes. Guarnieri, however, as early as 1892, called attention to them, believing them living bodies. Wasielewski considered them as organisms. But it has remained for the Harvard investigators to show this definitely.

As the disease progresses, these bodies increase in size and break up into a number of segments. At the same time one or more ring-like bodies appear in the nucleus arranging themselves generally about a central vacuole. The nucleus enlarges, undergoing a necrosis. It looses its distinctive border, and there is less vacuolation. The result is a mass containing a number of fine vacuoles. Though very indistinct, the ring-like bodies still persist; but within these same rings there are a number of smaller ones, about one micron in diameter, having a central dot. These Councilman, Magrath and Brinkerhoff regard as the true infecting organisms of variola.

It is thus seen that there are two distinct cycles in the development of the variola parasite; the first, an intracellular; the second, an intranuclear. The first is easily seen in the lower cells of the stratum Malpighi of the early vessicle; the second is to be found within the pustule. It is, however, quite difficult to find, is better seen upon the ape, and needs a special stain. For this purpose the chloride-of-iron-haematoxlyn nuclear stain devised by Mallory answers very well.

It may be remarked that the final products of the process, the segmentation of the intra-nuclear stage, are very hard to see. They were found by means of photographs. I, myself, have never seen them.

Variola, unfortunately, is not an uncomplicated disease. It is, indeed, probable

that, if the parasite alone were the agent, the disease would assume a mild character. But here, as elsewhere, the streptococcus plays an important role. Thus in the discrete and confluent types of variola vera, the action of the streptococcus is confined to a general septicaemia, while in the hemorrhagic form there is an added purpura. This may occur as a primary hemorrhage into the skin or early vessicle, purpura variolosa; or, secondarily, after the formation of the pustules, variola pustulosa hemorrhagica.

It may well be asked whether the puriform exudate of the pustules is the result of a streptococcus infection. This the Cleveland investigators declare not to be the case. Cultures from the blood of variola patients, as well as from the pustule itself, have been universally negative, and we are thus forced to the conclusion that the puriform exudate is the work of the variola parasite. In 33 out of 40 cases autopsied by Perkins and Pay, as we have stated above, there were lesions of the larynx and trachea; in 38, cultures of the blood after death gave the streptococcus. They, therefore, believe that the mode of entrance of the germ is by the mouth. Anti-streptococcus serum was freely injected into patients affected with variola, yet without result. Indeed, strange, as it may appear, in only one case did the serum prevent a growth of streptococcus in the test tube, and in that case it was the culture from which the serum was prepared. Shall we not, therefore, ask is there not more than one variety of the streptococcus?

A series of experimenss with the innoculation of animals from the contents of pustules has shown that the second stage of the parasite occurs only in man and in certain of the higher animals, notably the ape. In the rabbit and calf, for instance, only the intracellular stage developes. Thus it would seem that vaccinia is an attenuated form of variola, where, owing to a relative immunity on the part of the cow, the parasitic life is restricted to the first cycle.

Many problems yet remain to be solved. The method of the transmission of variola, the exact time required for the development of each cycle, whether there exists a sexual as well as an asexual development, the best histological technique to be employed, the true relation of vaccinia, these and many other questions will require much time and patience for their solution. Fortunately, however, the discoverers are still at work upon this subject, and a detailed account of their researches is promised at an early moment.

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Vomiting of Pregnancy.

Martin, in the British Medical Journal, says: 1. Where the nausea or sickness is light, with, at the most, retching, occurring usually in the forenoon and passing away just before or when quickening takes place, without producing any constitutional disturbance. 2. Where vomiting as well as nausea is of frequent occurrence, not confined to any period of the day, and resulting in appreciable failure of health and emaciation. 3. Where vomiting is so constant and persistent that all food is rejected, rapid emaciation follows, with febrile disturbance, circulatory troubles, jaundice, dry tongue, quick pulse, delirium and threatened death. 4. Where organic disease is present, and it is difficult or impossible to say what share pregnancy has, in producing a dangerous or fatal result. An extended clinical experience leads the author to say that there is simple nausea with or without actual emesis, of physiologic and of reflex origin, a symptom only due to hyperemia, the developing uterus, vessels and nerves in a confined cavity. That malposition of the uterus, if the cause of so many troubles in ordinary conditions of health, must be a graver trouble in the pregnant woman, and thus increases the vomiting of pregnancy and consequent malnutrition and emaciation. That in the absence of uterine troubles and organic disease hysteria plays an important role and usually defies all therapeutic remedies. If operation should be deemed necessary it should be carried out under thoroughly antiseptic conditions and anesthesia. He believes that nepenthe by mouth and morphine by rectum are the most useful in the treatment of vomiting of pregnancy. The induction of abortion must be considered in those cases which come under the third and fourth divisions of his classification. The responsibility of such an operation should be a divided one, and the patient should have the benefit of it before it is too late, not waiting too long under the hope that vomiting may suddenly subside, as it sometimes does. Better attention to health and the greater inclination to athletic exercises and hygienic surroundings may have a tendency to counteract the artificial existence which has for so many years existed in the child-bearing population.

Operative Treatment of Constipation.

Lane, in the London Lancet, believes that the causation, pathology, symptoms, and treatment of the changes in the gastro-intestinal tract which result from and are associated with the habitual overloading of the large bowel. Dilatation with corresponding lengthening is a marked feature in certain portions of the intestine, the most marked examples being the cœcum, the transverse colon, and the rectum. Fixation with a corresponding atrophy of the muscle coats of the wall of the intestine is especially marked in every portion of the large bowel except the bulk of the cæcum and the entire transverse colon. This fixation is brought about by a gradual process of anchoring the outer aspect of the upper part of the cæcum, of the colon, and the mesosigmoid and sigmoid flexure to the peritonæum lining the adjacent abdominal wall. In a few cases the sigmoid flexure, instead of becoming shortened, atrophied, and fixed is elongated, hypertrophied, and abnormally movable. Rotation of this elongated, overloaded loop gives rise to complete intestinal obstruction —the so-called spontaneous volvulus of the sigmoid flexure. A perfectly normal sigmoid, according to the author, cannot suddenly become twisted so as to form an immediate obstruction. The same applies to volvulus of the cæcum. Adhesions form between the appendix and the adjacent portion of the iliac fossa: when the cæcum is loaded it excites a strain on the proximal portion of the appendix and flexes it abruptly at the lower limit of its adhesions. Thus the appendix is occluded, its secretions are dammed up, and an inflammation of varying intensity is produced. The constant recurrence of appendiceal obstruction may lead to the formation of a calculus. Now the chief factor in all these changes is an over-loading of the cæcum and ascending colon. The erect position habitually assumed during the greater part of the twenty-four hours is a great factor. Even in defæcation, as usually practiced, the cæcum is driven downwards and forwards into the true pelvis; whereas in the squatting position enormous pressure is afforded by the forcible apposition of the thigh and abdomen. In many of these cases of chronic constipation the kidneys are mobile, from the constant pull on them. A second factor in the displacement of the kidneys is the absorption of fat due to the toxæmia. The poisoning from absorption of toxic material also manifests itself by increasing staining of the skin, and by marked mental depression. As already mentioned obstruction of the appendix is a very common concomitant of the alteration in the form and mechanics of the cæcum. In the treatment of the condition the author has had considerable success in opening the abdomen and dividing all constricting bands and adhesions, and subsequent careful attention to the proper functionating of the bowel. But when the alterations have proceeded too far, he divides the ileum about five inches above the cæcum, and makes an anastomosis with either the sigmoid flexure or the rectum, thus throwing the cæcum and colon "out of circuit." In a very few cases subsequent excision of the cæcum and colon may be required. But usually the patients rapidly regain their lost flesh, strength, and health.

Perchloride of Iron in Blood Poisoning and Other Disorders.

Latham, in the London Lancet, calls attention to the value of perchloride of iron in erysipelas and scarlet fever as a local application. The writer believes its efficiency to be due to the free chlorine which it contains. The value of chloride of iron as a local application in these conditions has been maintained by writers for a generation. Latham, believing that the principal value of the remedy lies in the free chlorine, says that it is unnecessary to give the iron, which if prescribed in large doses will cause irritation of the alimentary tract. Braithwaite said that chlorine water was a specific in scarlet fever, and Balfour in 1872 spoke in the same way of its value in diphtheria.

Chlorine water may be extemporaneously prepared by adding 20 grains of chlorate of potassium contained in a strong bottle to one drachm of hydrochloric acid. Violent chemical reaction takes place with the formation of free chlorine and potassium chloride. Water should then be added ounce by ounce, the bottle being agitated, until the fluid measures 20 ounces.

Local Anesthesia of Inflamed Tissues by Injection of Cocaine and Adrenalin.

Riballier (British Medical Journal) states that adrenalin markedly increases the analgesic property of cocaine. The subcutaneous injection of a mixture of cocaine and adrenalin into healthy tissues gives a prolonged anesthesia. This mixture acts well upon inflamed tissues, while cocaine alone has little action. The injection of the mixture produces intense local vaso-constriction, together with a rise of arterial tension and the slowing of the pulse rate. No respiratory trouble nor nervous symptoms have been observed. The toxicity of the mixture is nine or ten times less than that of cocaine. To 10 cubic centimeters of a 1-in-200 solution of cocaine is added 10 minims of adrenalin solution 1-to-1000. Anesthesia by this method is indicated in all minor surgical operations, but particularly those involving inflamed tissues

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PELVIC MASSAGE.

Since Lister's discovery the operations upon abdominal organs have gradually increased and a great amount of work accomplished which heretofore seemed impossible. Granting all this, there is no doubt that the conservative plan of treatment (that is other than operative) has perhaps been neglected to a certain extent. Gynæcologists have, and perhaps rightly, been assailed more in the past than the general surgeon for their lack of conservatism.

In those cases in which a retroversion or retroflexion exists with the accompaning endometritis and metritis, etc., and where the uterus is not bound down too firmly with dense adhesions if a systomatic pelvic massage is given for five minutes every other day and the use of a well-fitting pessary used, if indicated, will in these cases produce good results in three or four weeks.

The results obtained are better than those after ventrofixation because you do not have the adhesions which form after operative procedures of this kind. The uterus is brought back to its normal position and held there by the supports intended for that purpose.

The treatment consists in placing the patient on the gynæcological chair or table in the dorsal position with limbs drawn up and inserting the first two fingers of the left hand in the vagina and pressing upward on the cervix, then on getting the abdominal muscles relaxed with the right hand press gently but firmly down until you can grasp the fundus and raise it into its normal position and then gently massage the fundus in this position. By this process the uterus is placed in normal position the massage causes an increased blood supply to the part as well as relieving the congestion. If the uterus shows a tendency to return to its former position the insertion of a properly fitting pessary will retain it in its normal position until the next treatment.

The danger of this procedure is in trying to break down too large and firm adhesions by using too much force in bringing up the fundus. This treatment is especially indicated in those cases where an operation is refused or contraindicated from some other existing condition.

PHYSICIANS IN RUSSIA.

Through one of our exchanges we understand that the Russian Empire has 21,827 physicians. Of this number 737 are women. Women physicians in that country have all the legal privileges that the men have, and the Woman's Medical College at St. Petersburg is regarded as one of the best equipped teaching institutions in the world. The personnel of the better classes of Russian physicians is very attractive. Socially and professionally, some of the finest men we have ever met were Russian physicians.

The Japanese surgeons and physicians have received, during the last few months, many compliments, and they have been pointed to and declared superior to the Russian physicians. This lack of appreciation of the Russian medical gentleman is due to a want of more accurate knowledge of him. They represent the most refined and cultured of the Anglo-Saxon race. We have no disposition to depreciate the wonderful progress made in Japan, and especially among its professional men. No profession has made greater progress than that of the medical profession, but whenever we come to compare medicine and surgery and the hospitals of Tokio to that of St. Petersburg, we must admit that we were more favorably impressed with the latter.

EARLY DIAGNOSIS OF BRIGHT'S DISEASE.

Bright's disease in its earliest stage is very often overlooked by the busy practitioner. Patients are often passed over and treated for some apparently trival complaint when a careful and thorough examination would reveal a beginning brights. A pulse of high tension would make one suspicious and should lead to a thorough examination of the urine as well as of the heart and lungs.

In examining the urine one should be especially careful not to confound the cloud or ring of mucus with the albumin ring, especially in specimens obtained from females other than a catheter specimen. Mucus is almost invariably present in the specimens of urine of women, the mucus being carried from the vulva and anterior part of the vagina.

One of the first symptoms of Bright's disease may be albuminuric retenitis. The patient may complain of a cloudiness in the day time and a halo of redness about the lamp at night. On examining the retina with an opthalmoscope by the indirect method which is usually the easier of the two methods, one can see the flame like hemorrhages in the retina.

A constant swelling of the connective tissue below the eye is also a suspicious symptom, although this may be due to a loss of subcutaneous fatty tissue, leaving only a lax condition of the skin.

The discovery of a hardened condition of an artery, even though it be in a patient

well advanced in years, should lead to an examination of the urine. These cases generally have an arteriosclerotic kidney as well as a general arteriosclerosis.

As the disease progresses the severe and chronic disturbances of digestion, the peculiar color of the skin, the abundant amount of albumin in the urine and the different kinds of casts found depending on the stage of the disease and whether it be simply an acute condition or an acute condition grafted on a chronic disease, the large amount of oedema and finally uremia, all point to a somewhat advanced condition.

Therefore, an early diagnosis and proper dieting and treatment might at least prolong the lives of some of these cases.

THE IMPORTANCE OF AN EARLY DIAGNOSIS IN CANCER OF THE UTERUS.

There probably isn't a general practitioner who has practiced medicine for any length of time who could not recall from his cases some patients of this class. Although some of them, it is true, did not seek medical advice until it was too late. Still there yet remains those that have been treated and not systematically examined and thus allowed to get beyond even operative relief. When a patient at the age of the climateric complains of profuse and irregular menstruation a thorough examination should be made. and although the general practitioner may not be able to make a microscopical examination of scrapings, he should if there is any doubt at all in his mind, either have it done or send the patient to one who will do it. The man who waits for the foetid discharge of cancer for a diagnosis robs his patient of all the chances she has of obtaining relief. Usually one of the early symptoms and one which is looked upon as quite important by most specialists is the almost constant discharge resembling meat water. It usually precedes the foetid discharge for sometime and therefore makes it possible for one on discovering this to make a thorough examination and diagnosis during the time when the disease is in its early stage and renders the patient her only chance of recovery.

This condition is probably found more commonly in those cases where the endometrium is invaded early, but may also exist in the cervical cancer, but at a somewhat later stage of the disease. On the other hand this meat water discharge may exist in an old case of chronic endometritis which is not of a malignant character. If on vaginal examination of the cervix one finds an ulceration which after a suitable amount of treatment applied both to the uterus and to the ulcer locally which does not heal, a specimen should be taken and examined microscopically and in the great majority of cases it will be found to be of a malignant character.

Finally one might say that it seems as though too much care cannot be exercised in these cases, even by those who have had enormous experience with these cases.

REPORT OF THE SURGEON-GENERAL OF THE NAVY.

We have received and examined the annual report for 1904 of the Surgeon-General of the United States Navy. A perusal of its pages demonstrates the fact that the best methods are being more completely introduced into our public service. In time this will bring about a recognition of the dignity of the medical profession in its relation to the Army and Navy and indirectly bring about a greater desire on the part of competent young medical men to enter this department of the government service.

At the beginning of 1903, according to this report, there were but two vacancies in this department of the medical service. On account of certain retirements for disability and the increased appropriation by Congress, there were at the beginning of 1904 thirty vacancies, Ninety-nine applicants appeared for examination to fill these vacancies. But twenty-three were found qualified to receive their commissions.

It seems that an unexpected difficulty has arisen : that of securing qualified men. On this the report says :

"There has always been difficulty in securing qualified medical men for the navy. Recent legislation, giving assistant surgeons of the navy the rank, pay (less 15% for shore duty), and has more nearly equalized the advantages offered by the two branches of the military service. There is sound reason for a comparison of the status and pay of these two grades, in as much as they perform the same kind of service for the government, are drawn from the same civilian source, have practically identical qualifications, and it would seem best for the public service that there be equalization of their emoluments in every detail. The highest interest of the entire naval personnel, official and enlisted, is too seriously involved in the success of the effort now being made to secure and maintain the highest state of professional efficiency in the medical corps, for it to be wise to place it at a disadvantage, in comparison with the medical staff of the army, by offering inferior inducements to civilian medical men who might be inclined to enter the naval service."

It is rather difficult to understand why so few qualified young medical men apply for positions in the navy. We have thousands

of young men who are thoroughly competent to fill these positions who do not apply, and who do not succeed to any great extent in private practice. The public service, or this part of the public service, ought to offer more inducements, then there would be more applicants. It is predicted that these inducements will be forthcoming. It is a wise idea that the bureau again recommends that the titles of the different grades of the medical corps be changed in such a way that the official rank of a physician be recognized as well as their professional standing.

The report speaks complimentary of the progress made in the medical school. The students seem to appreciate the privileges and advantages afforded them and their work has been such as to encourage those in charge of the school. In addition to the regular work of instruction, lectures by men eminent in medicine and science have been given gratuitously.

The recommendation of trained women nurses as a part of the medical department of the navy is timely and wise. They should be a part of the service at all naval hospitals, on board of all hospital ships, and for special cases. Their value, really their necessity, has been demonstrated repeatedly to those in authority in these departments. It is admitted that women are superior to men as nurses. Congress, according to this report, has been urged to take up this matter, authorizing female nurses in the navy. The recommendation that has several times been made, is made again to authorize the department to employ dentists. The recommendation suggests that the number should be in proportion of one dentist to every thousand men, and that they should not exceed thirty in all. It seems that this suggestion is certainly a wise one. The importance of the care of the teeth and of the mouth cavity generally has been under-estimated. No doubt much illness is produced, indirectly, by bad teeth. We were under the impression that the department always furnished microscopes as a part of the medical outfit on all vessels. It seems that they have not. This is a necessity and one that should really be insisted upon. The head of this department recognizes one of the great defects in the conduct of the medical officers, that is, that they have not kept in touch with the progress of medicine and surgery as they should, and that they have neglected to attend medical meetings held by physicians in civil practice when they had an opportunity to do so. Hereafter it is believed that the medical department of the navy will send delegates to represent the service in the various medical associations and take a part in the discussions. It is as Surgeon-General Rixey says at the conclusion of his report that the work demonstrates a high grade of proficiency of the medical department of the Navy.

EFFUSIONS IN THE PLEURAL CAVITY SIMULATING PNEUMONIA AND CAVITIES.

The mistake of regarding pus in the pleural cavity as a consolidated portion of lung is by no means uncommon especially in children under five. The reason for this is in children, the bulging of the intercostal spaces, expansion of the chest walls, change in hight of the fluid by change in the position of the child, so important in the diagnosis of adult pleurisy with effusion are commonly absent in children. The area of pleura containing pus also gives the blowing breathing and dullness the same as in consolidation. Osler says: "It must not be forgotten that in children the breath sounds may be loud and tubular over a purulent effusion of considerable size."

Tooker says: "Sometimes when the murmur is viscular in the greater part of the lung, broncho vesicular or bronchial respiration is heard over a limited area, where the effusion happens to be sufficient to produce requisite compression of the lung."

Smith says: "Pleurisy with effusion may be mistaken for pneumonia in the stage of solidification for hydrothorax or on the left side for pericardial effusion or visa versa. But the percussion sound over a pleuritic exudation is either tympanitic or flat, while over a lung solidified by inflammation it has some resonance, though dull. There is also a sensation of greater resistance and solidity percussing over a pleuritic exudation than over an inflamed lung. Moreover the respiratory murmur whether vesicular broncho, vesicular or bronchial, is more distant and less distinct to the ear of the scullator when applied over a liquid than over a solid lung."

Starr says: "In children the exudate at a very early period, even from the onset is likely to be purulent, and it can be easily seen how important it is to discover the character of the exudate as soon as possible. Aside from pressure effects, the presence of a purulent exudate is dangerous on account of its tendency to burrough inward toward the lung, eroding the pleura, or to rupture externally, if there be any doubt as to the presence of fluid or as to its nature the chest should be explored with a hypodermic exploring needle."

Butler says: "Commonly the breath sounds over the fluid are weak or absent, but not infrequently in large effusions there is distinct bronchial breathing. At or

above the level of the fluid the breathing is broncho vesicular or even bronchial. The vocal resonance is usually annulled over the body of the effusion but there may be bronchophony. In children the voice and breath sounds may have a metallic or amphorous quality, which, with the loud rales sometimes heard will strongly but incorrectly suggest the presence of cavity."

MENTAL REST IN TYPHOID FEVER.

A person's mind in typhoid fever should rest. It should be absolutely quiet. It is as important as the quiet and rest of the the body. Anything that will cause the mind to act should be avoided. It is believed that it is even unwise to let fever cases in their convalescent stage, while they have any fever at all to even look at pictures. This will make them think and thinking is an action of the mind that should be avoided. To have anyone read to a fever patient is an objection well known, and for anyone to read to a patient is never allowed in my cases. For fever cases to listen to a conversation, even if they do not participate in it themselves is harmful. Admit as few visitors as possible, the fewer the better. After the fever has entirely subsided and after they have had no elevation of temperature for several evenings, patients usually want some company. It does not, as a rule, do them any harm and visitors and friends should be admitted. During the active fever stage members of the family should be excluded as much as possible. The importance of regulating the number of visitors in all kinds of fever cases is now well known, and the practitioner has less trouble to regulate this than in former years.

SUBSTITUTE FOR RUBBER GLOVES.

Dr. Murphy of Chicago has called attention to a substitute for rubber gloves. He suggests the use of gutta-percha dissolved in benzine. According to Dr. Murphy this coats the hands with an impervious coating, which is claimed to be superior to gloves. It has always been a question whether it was possible to thoroughly disinfect the skin by any antiseptic and we usually feel in doubt, when we take all the precautions possible, whether our hands are perfectly aseptic or not, when beginning an important surgical case. Some impervious coating for the hands like the one that Dr. Murphy has suggested may prove of great advantage. It is generally admitted that the deeper layers of the skin cannot be disinfected either by chemicals or by mechanical means. An impervious coating for the hands, if practical, is essential and no doubt will come into general use.

Review of Southern Medical Literature.

Virginia Medical Semi-Monthly.

Typhoid Fever. 1. Hemorrhage in a Child; 2. Double Relapsing Typhoid.—Dr. R. S. Martin reports these two interesting cases.

The Early Recognition of Hypertension.—Dr. Henry Wireman, Richmond, Va., calls attention to the fact that an early recognition of hypertension and the following out of proper hygienic measures correction in diet, the quantity being more important than the quality, free bowel evacuation, regulated exercise and hydrotherapy, and when necessary the proper drugs would greatly lessen the present number of cases of apoplexy, Bright's disease, etc.

Case of Post-Operative Hysteria Simulating Epilepsy.—Dr. Karl C. Corley, Washington, D. C., reports the above case describing the attacks which seem almost identical with true epilepsy. The conclusion drawn from such o case is that pelvic conditions may have an effect on the nervous system which, if not epilepsy, very closely simulate that disease.

Adeno-Carcinoma of Ileocecal Valve With Large Amount of Fibrous Tissue Resembling Appendicitis.— Dr. R. M. Slaughter describes this case, giving all the symptoms of a typical appendicitis, and found on microscopical examination of the mass recovered that it was an adeno-carcinoma.

Texas Medical Journal, December, 1904.

A full account of the legislative conference of the State Medical Association, held at Austin, November 14–15, is published in this issue.

Memphis Medical Monthly, December, 1904.

Dangers of Infection Which Lurk in the Telephone.—Dr. R. S. Stanley, Memphis, regards the mouth-piece of the telephone as one of the possible causes of the spread of tuberculosis, diphtheria and syphilis.

Strabismus.—Dr. G. H. Savage, Memphis, discusses this subject from both diagnostic and surgical standpoint.

Maryland Medical Journal, December, 1904.

Fournier and His Work —Dr. John Rubrah, Baltimore, gives a clear and interesting account of what Fournier has accomplished. This is a paper read before the Book and Journal Club of the Medical and Chirurgical Faculty of Maryland.

Southern Medicine, December, 1904.

The Anemia of Hook-Worm Disease.—Dr. Wm. Edward Fitch considers ground itch the forerunner of hook-worm disease.

The prevention of the disease lies mainly in cleanliness and avoidance of contaminated drinking water. This type of anemia is accompanied with a variable appetite, nausea, pain in epigastrium, constipation or diarrhœa, hypertrophy or dilitation of heart, and in acute form dyspnœa and dropsy. Children who have suffered from this disease for several years are stunted in growth and development, it being common to find young people from fifteen to twenty years of age who have the appearance of from eight to twelve years old. The skin will be found thin, pale putty-like in appearance and very wrinkled. Mucus membranes colorless, body weight decreased, lower extremities swollen, puffness under the eyes, and in some cases occasionally a very pronounced dropsy. Most cases show from one to two and a half million decrease in red corpuscles and a great increase in the number of leucocytes. In the remission of the decrease the leucocytes decrease while the erythrocytes increase and often go above the normal figure. The disease varies in intensity with the number of parasites and duration of the disease. After the Thymol treatment the iron seems to be readily absorbed. Through the pioneer investigations of Dr. Stile uncinaria is now considered one of the most easily diagnosed and readily curable afflictions. In regard to treatment manganese, by its oxygen carrying power in the blood has an importance which is fully as great in the hemetopietic process as that possessed by iron. Prominent scientists and physiological chemists say that the cause of chlorsis which often last for years and of other diseases due to deficiency in the composition of the blood must be sought for in our lack of means adopted to return to the blood its manganese under an easily absorpable form. Therefore it behooves the physician to use a combination of iron and manganese in the treatment of these cases to obtain the best results.

The Alabama Medical Journal, December, 1904.

Uncinariasis, Its Presence in the Birmingham District—Report of Cases.—Dr. J. M. Mason gives a brief description of the work done by various men in this country during the last three years in this branch of medicine. The parasite is a small round worm, the male 7 to 9 mm. long; female 9 to 11, and about as large around as a pin. The eggs are laid in the intestinal canal of the patient and are discharged with the foeces. They will not develop into adult worms in the intestine but must first pass out of the body. Thus for every adult worm present in the bowel a separate embryo must have entered the body. The adult worm is not passed in the stool except by accident, but remains firmly fixed to the intestinal wall. After being deposited and exposed to the air the egg hatches and the embryo escapes from the shell. This occurs in from 24 to 48 hours, depending on the temperature. The addition of much water kills the egg as does a freezing temperature. After the fifth day in the second ecdysis the embryo reaches its infectious stage lives well in water and does not undergo further development until it is taken into the human body. It is killed by drying. It takes four to six weeks for the embryo to reach maturity.

The soil becomes infected through careless disposal of fecal matter. Any habit of living which exposes the individual to an intimate relation with infected soil will sooner or later in the majority of cases produce infection, therefore most common among farmers and miners.

Stiles says: Injury to patient result from (1) sucking of blood from patient (2) loss of blood into the intestines through minute wounds made by the parasite (3) the wounds forms points of attack for bacteria (4) walls of the duodnum and jejenum become checkered and degenerated (5) parasite produces a toxin which is found in the urine and when injected into animals produces anemia.

At autopsy all organs are anemic, heart hypertrophied, spleen enlarged intestines show many hemorrhages and bites. Worms found in iliem and jejenum. The observation is made that "it is not the most advanced cases of anemia which always have the largest quantity of worms." The symptomatology, special symptoms, diagnosis, treatment and prognosis are also fully discussed. The paper concludes with a report of 15 cases.

The American Practitioner and News, December, 1904.

Syphilis or Locomotor Ataxis—Dr. J. A. Flexner cites cases which have been under his care in which he has used antisyphilitic remedies and seen decided improvement. Locomotor ataxia is regarded as a syphilitic condition and when the diag. nosis is made sufficiently early and before hopeless destruction has taken place they are practically cases of syphilis of the cerebro-spinal axis and are amendable to the vigorous use of mercury and iodides, a therapeutic necessity in the treatment of later manifestations of syyhilis in any part of the body. The error of mistaking these cases in early stages for rheumatism can be avoided by making a careful examination.

The Virginia Medical Semi-Monthly, December 23, 1904.

Surgical Treatment of Cirrhosis of the Liver.—Dr. Southgate Leigh says that abdominal surgeons have of late been much impressed with the possibilities of collateral circulation in the treatment of certain degenerative diseases of the abdominal organs. One frequently meets with a case in which a new growth springing from one source is supplied with blood through inflammatory adhesions with other parts. In cirrhosis both the presence and the contraction of the connective tissue lessen the size of the various channels, and thus dam the blood back on the abdominal organs. This, in turn, leads to digestive disturbances and ascites.

The case reported by the author of this paper was a man 60 years of age, who from the description given, was in the later stages of cirrhosis. The operation was a modified Talma. Instead of simply scaping the abdominal wall and suturing the omentum to this he also treated the surface of the liver in the same way and fastened some of the omentum to this, thus giving the superficial liver cells increased arterial supply of blood and relieving the abdominal congestion through the abdominal attachment.

The patient showed very little improvement until three months after the operation, and six months after the operation patient was relieved of all symptoms. The author saw the case sixteen months after operation and found potient in good health with spleen normal. Liver normal in size, except a small projection extending down to the scar on the abdominal wound. It would, therefore, seem that this operation offers some hope, even in the most extreme cases.

Southern Medicine and Surgery.

Fracture at and Near the Elbow Joint.—Dr. J. B. Murfree says that fractures at and near the elbow joint form an important class of injuries on account of their frequency, severity of pain and the permanent disability which sometimes results. Fractures in this region are more often followed by deformity and stiffness than in any other part of the body. Fractures at or near the elbow joint include fractures of the lower end of the humerus and the upper ends of the radius and ulna. Fractures at the lower end of the humerus are frequent, especially in childhood, and are usually caused by direct violence, but may be due to indirect violence, as in falls upon the re-stretched arm. The symptoms of this fracture are pain, loss of function, deformity, abnormal mobility and crepitus. The deformity is usually well marked, especially when line of fracture is oblique downward and forward the lower fragment is drawn backward and thus closely resembles a backward dislocation. The diagnosis is to be made by noticing the relation of the condyles ot the humerus to the olecranon process and the relation of the head of the radius to the ulna in front of the external condyle. This fracture may be compound or complicated by injury to Bracheal artery or medean nerve. After reduction of fracture use anterior and posterior angalar splints from shoulder to wrist flexed at right angle. Internal and external angular splints allow the lower fragment to project too far forward, producing deformity. Plaster paris is better than splints. Fracture of the internal epicondyle, common in children, best treated by simple immobilization of the joint for a few weeks.

In T-shaped fracture of the lower end of the humerus the reduction is often difficult and usually results in some stiffness of the joint, therefore, it is well to put it up in a position which will enable patient to get the most useful arm, even though joint remains stiff. In fracture of olecranon place parts in direct apposition if case is an old neglected one, wire it. In all doubtful cases the X-ray should be used.

In the treatment of fracture of the elbow joint one should be careful to only allow the hand to rest in the sling and never the whole forearm, because the weight of the elbew is needed to produce traction upon the lower fragment. If the sling is applied to the elbow it tends to press the flexed elbow upward, changing the transverse axis of the joint by the ascent of the internal condyle which adducts the forearm, thereby producing the gunstock deformity.

Book Notices.

A Compend of the Practice of Medicine. By Dan'l E. Hughes, M. D., Late Chief Resident Physician Philadelphia Hospital; Late Physician-in-Chief Insane Department, Philadelphia Hospital; Formerly Demonstrator of Clinical Medicine in the Jefferson Medical College of Philadelphia, Etc. Seventh Revised Edition. Edited, Revised and in Parts Rewritten by Samuel Horton Brown, M.D., Assistant Dermatologist, Philadelphia Hospital; Assistant Dermatologist, University Hospital Dispensary, Etc. Including a Section on Mental Diseases and a very complete section on Skin Diseases. Illustrated. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1904. Price $2.50 net.

In the preparation of this, the seventh edition of the work, Dr. Brown has care-

fully revised all of the matter that has appeared in the former editions. The arrangement of the diseases has been changed considerably to confirm with the more modern divisions of pathology. Introductory notes have been placed at the beginning of each section. Many new prescriptions and modern modes of therapy have been incorporated in the text. The method of expression has been largely reconstructed excepting the section on mental diseases, in which the colloquial style of the previous editions has, to a great extent, been retained. One hundred and thirty seven pages have been added and twenty-seven illustrations have been inserted. Obviously the number of diseases considered is greater. A large index and an unusually comprehensive table of contents are contained in the book. The new material worthy of especial remark includes the articles on the classification and general characteristics of fevers, the blood and its examination, the examination of the sputum, the examination of the stomach contents, urinalysis, physical diagnosis, and the introductory notes on symptomatology placed at the beginning of each section. A table for the conversion of the apothecaries' system into the metric system has also been added. The typographical work is entirely new. In other words the book has been completely revised and rewritten. Dr. Brown has given the profession a most valuable volume.

Quiz-Compends. Diseases of the Eye and Refraction, Including Treatment and Surgery. By George M. Gould, A.M., M.D., Editor "American Medicine," Formerly Ophthalmologist to the Philadelphia Hospital, etc., and Walter L. Pyle, A.M., M.D., Assistant Surgeon to Wills Eye Hospital, Philadelphia; Associate Member of the American Ophthalmological Society, Etc. Third Edition, Revised and Corrected. One Hundred and Nine Illustrations, several of which are in colors. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1904. Price $1.00 net.

The publishers of the first edition of this Compend disposed of a very large number of copies and they have been encouraged to bring out a second edition within two years. The authors have corrected, revised and enlarged the text as much as possible, with the necessarily limited space until now the volume far exceeds the ordinary size and scope of a compend. Through the liberality of the publishers the whole book has been reset in larger type and several new illustrations, including five colored plates, have been added. The section on local ocular therapeutics has been increased to include all the recent mydriatics, miotics, local anesthetics, ocular antiseptics, etc. Additional emphasis has been given to points of practical value. The work is now up-to-date and those interested in this condensed form of medical literature could no do better than add this to their library.

Text-Book of Insanity. Based on Clinical Observations for Practitioners and Students of Medicine. By Dr. R. von Krafft-Ebing, Late Professor of Psychiatry and Nervous Diseases of the University of Vienna. Authorized Translation from the Last German Edition. By Charles Gilbert Chaddock, M.D., Professor of Diseases of the Nervous System in the Marion-Sims-Beaumont College of Medicine, Medical Department of St. Louis University, St. Louis, Mo. With an Introduction by Frederick Peterson, M. D., President of the New York State Commission of Lunacy. Philadelphia: F. A. Davis Company, Publisher. 1904.

The present edition follows the tradition of preceding editions in that the author's text-book is intended to be a useful guide in the difficult domain of psychiatric study and science for the student as well as the practitioner of medicine. For the attainment of this object the important points that have been kept in view are: Clear comprehensive terms; avoidance, as far as possible, of theories and hypotheses; emphasis of all that may be regarded as more or less certain in the science of psychiatry; and systematic arrangement of the scientific material. Owing to the peculiarity of this science and its state of incompleteness, text-books on psychiatry present more or less prominently subjective features dependent upon the personality of their authors. The present text-book is based upon thirty-three years of observation of the insane and presents disease-pictures in the light of the author's experience. The general correspondence of the author's experience and that of other observers may be taken as a guarantee that he has been correct in his observation, and that, notwithstanding the confusing variety of manifestations of diseases of personality there are certain fixed laws which permit establishment empirically of distinct disease pictures.

The most careful account has been taken of the additions to psychiatric science since the last edition of this work. The work deserves the favorable consideration of the profession of our country.

The Diseases of Society (The Vice and Crime Problem). By G. Frank Lydston, M.D., Professor of Genito-Urinary Surgery, State University of Illinois; Professor of Criminal Anthropology, Chi-

cago-Kent College of Law; Surgeon to St. Mary's and Samaritan Hospitals, etc. Philadelphia and London: J. B. Lippincott Company. 1904.

It seems that Dr. Lydston has devoted a great deal of study to this subject. He has written many papers bearing upon the things that he more fully considers in this volume. The first paper that he wrote was "The Pathology of Vice and Crime." He published this in the Chicago Medical Journal in 1883. The next paper he wrote was entitled "The Studies of Criminal Crania." This paper appeared in the Chicago Medical Recorder in 1893. His third paper was entitled "Materialism vs. Sentiment in the Study of Crime," which appeared in Transactions of the Kentucky State Medical Society. His fourth paper was entitled "Sexual Crimes Among the Southern Negroes," and appeared in the Virginia Medical Monthly. His fifth paper was entitled "Asexualization as a Remedy for Crime," and appeared in the Medical News. He has written other papers entitled "Aberrant Sexual Differentiation," "Sexual Perversion aud Inversion," "Nordau and his Critics," "Criminology and Its Sociologic Relations." All of these papers, after a thorough revision, appear in this volume. It is a collection of interesting literature, written in Dr. Lydston's attractive style.

The Practical Medicine Series of Year Books, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly. Under the General Editorial Charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume X. Skin and Venereal Diseases, Nervous and Mental Diseases. Edited by W. L. Baum, M.D., and Hugh T. Patrick, M. D. September 1904. The Year Book Publishers, 40 Dearborn Street, Chicago, Ill. Price $1.00.

The present volume of 234 pages is one of a series of ten issued at monthly intervals and covering the entire field of Skin, Venereal and Nervous and Mental Diseases. Each volume being complete for the year prior to its publication on the subject of which it treats. This series is published primarily for the general practitioner, at the same time the arrangement in several volumes enables those interested in special subjects to buy only the parts they desire. Drs. Baum and Patrick are the editors of this volume, and we would naturally expect to find what we do—matter that is well up-to-date, perfectly arranged and of interest and value. It contains abstracts of all the principle articles of the past year and is well indexed. It will prove most valuable to every student and practitioner interested in these subjects.

The Nose and Throat in Medical History. By Jonathan Wright, M.D. Lewis S. Matthews & Co., Medical Books, 2623 Olive St., St. Louis. Price $2.00 net.

The study and research in the production of the present volume are enormous, for the notes have been taken chiefly from the original sources, and are not merely a *rechauffe* of well-worn quotations. It is perfectly plain that the work has been the result of a great deal of labor. It is not a mere collection of quotations, for the whole is wedded together by a philosophical running commentary displaying clearly the authors breadth of grasp and his logical mind and his scholarly attainments.

Apart from its value as a work of scholarship, it is eminently a readable book containing much of interest and value. We predict that it will prove a welcome addition to the library of every physician, who believes that "science and literature are not two things, but two sides to one thing."

"Ups and Downs" of a Virginia Doctor. By his Lifelong and Personal Friend, Clarence A. Bryce, M. D. 1904. Ashland Printing Company, Ashland, Va. Price $1.00.

Dr. Bryce has written in a very attractive way a sketch of a doctor's life that should be of interest to every physician. Many of the chapters in this book have appeared in the author's medical journal and are familiar to a great many doctors of the South. The book is well worth reading. It contains many interesting experiences of a country doctor's life that are similar to our own.

Transactions of the Twenty-Sixth Annual Meeting of the American Laryngological Association, held at Atlantic City, N. J., June 2nd, 3rd and 4th, 1904. Published by the Association, New York. 1904.

The transactions of this Association come to us this year in a large volume of 360 pages. It is beautifully illustrated and handsomely bound. Dr. James E. Newcomb, of New York City, is secretary, and Dr. J. H. Hartman, of Baltimore, Md., is president, of the Association. Dr. Newcomb, the secretary, in editing these transactions has done his work well.

The preparations of "Pepsin," made by Robinson-Pettet Co., are endorsed by many prominent physicians. We recommend a careful perusal of the advertisement of this well-known manufacturing house. (See page xii.)

Abstracts of the Leading Articles of the Month.

Report on Radiotherapy.

Kienbock (Archives of the Rontgen Ray) believes that every living tissue is subject to pathological change under the action of the Rontgen rays which is not due to a static electrical effect. It consists in degeneration and necrosis, and young and proliferating cells are especially affected. This degeneration can be detected by the microscope within a few hours after a single exposure of medium duration. A longer exposure causes inflammatory changes accompanied by lesions of the walls of the blood vessels, after a definite lapse of time. The intensity of this dermatitis depends upon the penetration of the rays to different depths, which vary with the character of the tube employed, soft, medium, or hard. The action does not extend beyond the limits of the parts exposed to the rays. During the exposure there is no visible change in the tissue; the microscopical changes begin after a few hours, the clinical symptoms of dermatitis after one, two, or three weeks. In radiodermatitis five periods may be distinguished: those of latency, ascendance, acme, descendance, and after a period of many months, lesions may occur. The greater the dose of rays at one sitting the shorter the period of latency, the stronger the reaction, and the longer the duration of the dermatitis. There may be four degrees of exposure:

1. Latency of three weeks. No superficial inflammation of the skin, temporary loss of hair, shrinking of lupus nodules, exacerbation of pre-existing inflammation.

2. Latency of two weeks. Erythema, swelling lasting one or two weeks, loss of hair.

3. Latency of ten days. Redness, vesicles, excoriation and exudation, resolution in three or four weeks.

4. Latency of five to eight days. Discoloration, the commencement of necrosis, demarcation and ulceration, followed by scarring after six weeks or longer.

One year or eighteen months after a dermatitis of the second degree, the characteristic atrophy of the skin with telangeiectases of the skin may occur. These late symptoms invariably follow an exposure of the third degree.

The author uses a coil which gives a spark of 15 to 20 inches, a mercurial or an electrolytic break, with a regulating tube maintained at a medium degree of hardness. The maximum light of the tube is used, the tube being brought as near to the affected spot as possible, the exposure being limited to a few minutes. The surrounding skin is protected by a lead shield 25 mm. in thickness, covered on both sides with india rubber.

The dosage depends on the intensity of the light, the quality of the tube, the distance of the tube, the frequency of the break intermission, and the length of the exposure. The dose should vary directly with the duration of the exposure.

The dosage may also be estimated by Holtznecht's chromoradiometer, the amount of radiation absorbed by its disc being estimated in Holtznecht's units. A small normal dose will produce a reaction of the first degree in five minutes, and an absorption of x rays of about three Holtznecht's units.

A normal dose will produce a slight reaction of the second degree in five to ten minutes and an absorption of three to five Holtznecht's units. A large normal dose produces a strong reaction of the second degree in ten minutes, intensity five Holtznecht's units. A double normal dose is followed by a reaction of the third degree, duration fifteen minutes, intensity eight Holtznecht's units. Certain diseases may be cured by a single exposure, producing an acute radiodermatitis of the second degree. Dose, four Holtznecht's units, with seven minutes' exposure.

Some diseases require an acute inflammatory reaction every second month, others require a moderate exposure every week. Many diseases give better results if there is no inflammatory reaction. A degenerative action may be set up by a weak exposure once a fortnight. The healthy skin reaction is not the same for all portions of the body, and is influenced by age and sex. A diseased spot is more sensitive than normal skin. Idiosyncrasy is not a frequent cause of Rontgen burns.

The microscopic appearances show that the Rontgen rays produce degeneration of the parenchymatous cells, and of the walls of the vessels, and acute or chronic degeneration with infiltration of the tissue, resulting in atrophy and scarring. There is also a stimulating effect on metabolism, as is seen in the cure of alopecia areata. There is also an arrest of itching and a suppression of pain.

The bactericidal power of x rays which has been recognized by experiments on cultures plays no part in Rontgen therapy, for the high intensity, twenty Holtznecht's units, which is necessary, is four times the normal dose.

Surgery of the Stomach.

Saundby, in the British Medical Journal, says that operative interference is imperative in: (a) Impermeable stricture of the œsophagus; (b) perforated gastric ulcer; (c) subphrenic abscess; (d) tumor in the region of the stomach with vomiting and

other symptoms of pyloric obstruction. He admits the reasonableness of surgical interference in gastric hæmorrhage, but so far he has never found it necessary to operate, all of his cases having recovered in the end. In an uncomplicated case of gastric ulcer there should be no question of surgical assistance. It is very rare that gastric ulcer does not improve under treatment, and the author has never seen an uncomplicated case result fatally. In duodenal ulcer operative interference for repeated bleedings should be tried. In dilatation of the stomach a distinction must be made between primary or idiopathic, and secondary or obstructive dilatation, as it is in the latter only that surgical aid is required. Where obstruction exists, whether from external pressure, adhesions, growth, hypertrophy, or spasm, a cure can be effected only by surgical means. A physician should not persist in merely palliative treatment when gastroenterostomy will bring about a complete cure. The clinical indication for this operation is stasis, which is of more importance than the size of the stomach or the existence of dilatation. In idiopathic dilatation without stasis the balance of opinion is against operation. Operations upon neurasthenic subjects should be avoided as far as possible. Hour glass stomach is by some thought to be merely an exaggeration of the physiological division of the organ into fundus and antrum pylori, and calls for surgical treatment only when it gives rise to symptoms of obstruction and stasis. Hyperchlorhydria is not infrequently associated with stasis and pyloric stenosis or spasm. Wherever stasis is present gastroenterostomy is indicated; but if it is a pure neurosis surgical interference is uncalled for. Neither chronic gastritis, atonic dyspepsia, nor gastralgia in itself requires surgical treatment. The presence of cancer of the stomach clearly indicates operation : the real difficulty is that of early diagnosis, the nature of the case being often only recognized too late. Barling tells us that there is a group of cases of digestive derangement which call for surgical treatment. Excluding perforation these are : 1. Chronic gastric ulcer, frequently relapsing despite proper dieting and rest. 2. Hæmorrhage from gastric ulcer, where the bleeding is profuse and quickly repeated, or where there is never a great loss but one which is often repeated. 3. Mechanical obstruction to the emptying of the stomach from pyloric stenosis, hour glass contraction or external adhesions. 4. Ulcer or stenosis of the duodenum. The operative measures required for the relief of these various conditions may be : 1. Excision of the ulcer. 2. Pylorodiosis or stretching of a narrowed pylorus. 3. Pyloroplasty or gastroplasty, division of the stricture, and its widening by a special method of suturing. 4. Gastroanastomosis, or the formation of a function between stomach and jejunum, stomach, and duodenum, or between the distal part of the stomach and the proximal in certain cases of hour glass contraction of the organ. The first three operations have only a very limited application; gastrojejunostomy is the operation of election in the large majority of cases. The death rate will be, in the hands of those accustomed to perform the operation, about five per cent. Power's paper on duodenal ulcer is based upon the observation of seven cases which he reports in tabular form. He tries to show that: (a) Duodenal ulcers are not very uncommon. (b) So far as he has seen them, duodenal ulcers are single and occur more often in men than in women. (c) Duodenal ulcers may perforate and cause acute symptoms or they may heal and by cicatrization lead to symptoms of chronic duodenal obstruction. (d) The sequelæ of a healed ulcer may be so remote that the symptoms are mistaken for those due to cancer of the pylorus, and the patient is allowed to drift from bad to worse under the erroneous notion that he is bound to die. (e) There is no means of recognizing the existence of a duodenal ulcer, in a great many cases, until it perforates or until the results of its cicatrization become manifest. (f) The treatment of duodenal ulceration consists (1) in the direct suture of a perforated ulcer, the prognosis being less favorable than in similar cases of perforation; (2) the performance of gastrojejunostomy in cases of dilated stomach due to duodenal constriction, the prognosis being the most favorable of all the conditions for which this operation is done at the present time.

The Germ-Cell Theory of Cancer.

Grunbaum, in the British Medical Journal, discusses the morphological continuity of the germ-cells, which he explains as follows: After the union of the sperm and the egg, there is formed by the subdivision of the united cell what corresponds to a larva, or trophoblast; in man the chorion. From one of its cells there is formed, as it were, a number of spores. One of these spores ultimately becomes the embryo, which includes within itself the remaining spores to become its sexual cells, which are thus not formed from the embryo, but are handed down to it, and for which it merely forms a home. It has been suggested that the aberrant germ-cell might be the origin of a cancerous growth. As to the connection between the germ-cell and a malignant growth, it has been found that there is in malignant tumors a form of nuclear divis-

ion which normally occurs only in the sexual cells, amongst the spermatozoa and ova. One of the distinguishing characteristics of this heterotype mitosis is the formation by the dividing cells of only half the normal number of chromosomes. The other characteristics were also observed in the cells of malignant growths. These discoveries show that there must be something in common between the germ-cell and the tumor-cell. This form of nuclear division has not been found in innocent tumors. He says that the distinction between innocent and malignant tumors is not fundamental. The heterotype mitosis does not occur at once in the evolution of the sexual cells. It may not occur at first in tumors, and in this stage they are not malignant. He believes that given the cell or cells of the potential growth, it seems not improbable that the toxin of a parasite, the short stimulus of a trauma, the long-continued stimulus of chronic irritation, or the chemical conditions of disordered metabolism, might be sufficient to call forth their energies into activity, and thus one or all of the alleged causes in turn might have their share.

Surgical Treatment of Complete Descent of the Uterus.

Dudley (Montreal Medical Journal) says that he is prepared, from a prolonged trial of the principal surgical procedures, to lay down certain essentials. An efficient operation on the vaginal wall should have for its object, not narrowing the vagina, but restoring its normal direction: with a double purpose, so that (A) its upper extremity, together with the cervix uteri, shall be in the normal location within an inch of the second and third sacral vertebræ, just where the utero-sacral ligaments would hold if their normal tonicity and integrity could be restored; and so that (B) its lower extremity shall be brought forward against the pubes. The fulfilment of these two indications will restore the normal obliquity of the vagina, and will hold the cervix uteri so far back that the corpus uteri must be directed forward.

In order to accomplish this two things are necessary: 1. Excision of the cystocele; 2. Perineorrhaphy. Hysterectomy, if indicated, should be performed by the vaginal route. Procedentia is a hernial descent of uterus, vagina bladder and rectum.

Generally speaking, the indications for surgical interference are somewhat as follows:

1. Extreme cystocele, not associated with the most extreme procidentia, should be treated by anterior colporrhaphy and perineorrhaphy.

2. Cystocele, associated with complete procidentia, may properly be treated by hysterectomy, anterior colporrhaphy and perineorrhaphy. Anterior colporrhaphy in all cases.

3. Conditions intermediate between the two conditions indicated above, and cases of very feeble or aged women will call for special judgment whether hysterectomy be omitted or performed.

Other operations designed to decrease the weight of the uterus by removal of a part of it are of questionable value. Amputation of the cervix to lighten the weight of the uterus has been much practiced in spurious hypertrophic elongation of the cervix. Alexander's operation and abdominal hysterorrhapy belong to the surgical treatment of retroversion and retroflexion, not of procedentia.

Observations on Gonorrhoea in the Male.

Moller, in the Archiv. f. Dermatologie and Syphilis, only mentions two abortive methods of treatment—the Janet method of irrigation with potassium permanganate, and injections of protargol. Tabulated results covering 262 cases would show more favorable results in those treated by the protargol method of Welander.

Regarding gonorrhœa of the urethral follicles the author shows that out of 215 cases of gonorrhœa 49 showed evidence of indurated folliculitis, and draws attention to the fact that the existence of this complication gives rise to, and is the cause of, numerous recurrences of the longer or shorter periods of quiescence. In this connection the writer has found that frequently on urethroscopic examination of such cases it was impossible to detect any visible opening in the urethra leading into these indurated nodules. The treatment by instillation of strong silver solutions into the ducts, where these can be found, and other non-surgical methods are only occasionally satisfactory, while operative removal is difficult and uncertain. In such cases it is frequently necessary for the patient simply to use ordinary injections until such a time as the gonococci have disappeared.

Under "urethritis externa" he discusses gonorrhœal inflammation of the para-urethral and preputial crypts or passages. The histological findings were similar to those found in the excised Morgagni crypts of the urethra. These anamolous passages are described as para-urethral passages, accessory passages in hypospadias, cutaneous inversion or crypts, atypical sebaceous glands, rapheal passages. He treats gonorrhœal inflammation of these passages by complete excision, primary union being generally obtained.

The diagnosis of spermato-cystitis was determined by irrigating the bladder and

urethra, filling the bladder with sterile water, expressing the prostatic secretion, emptying the bladder, again filling it with fresh, clear solution, and expressing the contents of the seminal vesicles by means of Pezzoli's modification of Felekis instrument. Out of 60 patients suffering with various forms of gonorrhœal urethritis examined in this way, 9 showed gonococci in the expressed contents of the seminal vesicles. In none of these 9 cases were bloody ejaculations noted.

He does not think that gonorrhœal inflammation of the seminal vesicles is of any great practical significance, as the gonococci disappear spontaneously, and their presence does not produce any symptoms. The writer describes one case of gonorrhœal ureteritis, in which the ureters were thickened, swollen and tender. The author says that this is a very rare complication and of little significance. In regard to epididymitis, he is of the opinion that it is a mistake to wait too long before taking up the local treatment after the epididymitis begins to subside, as one thereby loses the valuable opportunity of attacking the gonococcus at a time when its power of resistance is lowered as a result of the acute inflammation in the epididymis; and for the treatment after the epididymitis he recommends irrigations with weak solutions of potassium permanganate. He says an acute gonorrhœal inguinal adenitis also seems to exert an inhibitory influence on the virulence of the gonococcus.

He discusses mixed gonorrhœal infections and general gonorrhœal septicæmia. The article contains numerous other interesting features of practical importance, and is one of the most acceptable papers on gonorrhœa that has recently appeared in periodical medical literature.

Constipation Treated by Injections of Olive Oil.

Herschell, in the Lonnon Lancet, makes the statement that the methodical use of oil injections is one of the most efficient measures at our command for the treatment of muco-membraneous colitis and constipation. The writer says that in order to succeed, however, cases must be selected and injections given in the proper manner. The injection of olive oil as a matter of routine in all cases of constipation will prove disappointing and discredit the method. Gratifying results can be obtained in cases depending on chronic colitis; constipation associated with spasm of the bowel, such as is so frequently found in neurasthenia, and in atony of the intestines, used conjointly with the electrical treatment.

Herschell's method consists in the injection of from 3 to 10 ounces of warm olive oil at bedtime. This is retained during the night and usually results in an evacuation after breakfast on the following day. The oil should be introduced slowly so as not to create an immediate desire to evacuate. The apparatus used by him consists of a glass funnel provided with a metal loop, by which it can be suspended at a convenient height above the bed on which the patient lies while taking or receiving the injection. It is fitted with about 27 inches of rubber tube of large caliber and terminates in a nozzle of special construction. This nozzle has a large bore to allow the steady passage of the oil, and has the end of the bore well rounded so that even when roughly and unskillfully used it is impossible to damage the mucous membrane of the rectum, and from its shape it is self-retaining. The outflow of oil is controlled by a spring clip, which is so contrived that when opened it will remain so until a catch has been released. The measured quantity of oil is heated by standing the beaker containing it in a basin of hot water before it is injected. It is best to commence with five or six ounces and to reduce the dose daily until the smallest amount which will produce an action of the bowels is found. The effect may be then tried of using the oil on alternate nights, and so on, the intervals being lengthened gradually until the oil is no longer necessary.

Tubercular Laryngitis.

Harmer (London Clinical Journal) says that the most usual early symptom of laryngeal tuberculosis a noticeable loss of voice or lack of control in tone and pitch. This may be due to fixation of one of the cords or to swelling of the mucous membrane of the part. Paralysis of a vocal cord is more common on the right side, due to the intimate relation of the right recurrent laryngeal nerve to the pleura on that side. Thickening of this pleura is therefore more likely to involve the nerve. But aphonia and changes in the larynx are not interdependent.

The first noticeable sign is pallor of the mucosa, especially that covering the epiglottis. Very often it is patchy in distribution and a dull red color may be seen on the arytenoids or interarytenoid span. Ulcers can often be seen; they are small circular, superficial spots at first, tendingto coalesce into irregular patches. Around the ulcers granulations form, and when the infiltration is excessive definite tumors result. The lymphatic glands in the neck are rarely involved. To the naked eye tubercles are seldom in evidence and military tuberculosis, so-called, must be rare. For treatment he says that absolute rest is all-important.

Measles, Signs and Symptoms of, in Relation to Diagnosis and Prognosis.

Balme (The London Practitioner) gives the results of observations on 227 cases of measles, and calls attention to the importance of this dangerous disease, which is responsible for an annual mortality of 10,000 to 12,000 infants. The incubation period, as determined by tracing the source of infection definitely in 84 cases, varies between 6 and 18 days, the average being 11.2 days. The prodromal symptoms, usually stated to be pyrexia, cough, and coryza, also include others on which considerable stress is placed. Vomiting occurred in 65 per cent. of the cases during the invasion period of the disease. Diarrhœa was present in 28 per cent. Epistaxis was present in 10 instances. Laryngitis was present in 8.5 per cent. of cases. He calls attention to koplik spots and in his series of cases 214 were examined particularly for this sign, which was present in 97.7 per cent. Many make mistakes in the recognition of these spots. Those which should be distrusted are spots the size of a pinhead or larger; those which appear to be part of the mucous membrane itself and not raised above it; spots which tend to coalesce; and spots on a normal mucous membrane devoid of any trace of hyperæmia. Their value as an aid to early diagnosis is lost in the case of young infants, as they are seldom found until the rash is present.

Early Diagnosis in Phthisis.

Giulio (Gazzetta degli Ospedali) mentions the quality of the inspiration in the diagnosis of phthisis. For the early diagnosis, more value is to be attached to inspiration than to expiration, and the author advises attention being paid to that alone. Inspiration gives data, direct and precise, as to the condition of the alveolar canals and lobuli, while expiration indicates more especially the state of the bronchial channels, and the early localizations of phthisis are in the alveoli; hence it is more likely that inspiration should give early evidence of disease than expiration. The chief modes in which it becomes pathologically modified are in the way of roughness, weakness, and interruption, and of these the most stress is laid on the first. It is useful to remember that respiration is normally more marked in women, especially at the right apex, than in men; more marked in the erect than the prone position, after meals than before; and in subjects who breathe badly one can sometimes get better breathing by telling him to breathe rapidly with the mouth closed. Interrupted respiration probably means impaired elasticity of the lung, and possibly weakening of external respiratory muscles.

"Ovarian" Pain: Its Causes and Treatment.

Herman (British Medical Journal) says: The pain which is commonly spoken of as ovarian is referred to a spot about two inches internal to the anterior superior iliac spine. Deep pressure over this spot causes manifestation of pain, which is spoken of as ovarian, and it has been taken for granted that this discomfort indicates that the ovary has been pressed upon. A further inference has often been made that because the ovary was painful and tender therefore it must be diseased.

It is first proposed to answer the question whether such pain and tenderness depends upon disease of the ovary, and if so, what is the disease. A needle passed into the pelvis at this point rarely transfixes the ovary. Even though the ovary were situated near this point it is surrounded by structures and is freely movable, so that it would not be compressed. A further doubt is thrown on the ovarian nature of this tenderness by the fact that among hysterical men a similar tenderness is met with.

Pain in this region may be due to an inflamed peritoneum. This pain is local, and is felt at the spot and not in the back. When there is pelvic peritonitis the peritoneum over the ovary is often affected, and sometimes the inflammation spreads to the substance of the ovary, and thus pelvic peritonitis may be associated with genuine ovarian pain. There can be no doubt about the relation of pain caused in this way to the ovary.

Reflected pain may accompany any abnormal state of the female genitalia, shown by superficial tenderness over the area supplied by nerves coming from the tenth dorsal to the second lumbar and from the first to the fourth sacral segments. The ovary is mainly associated with the tenth dorsal. The tenderness is ascertained by pinching up the skin between the finger and thumb or by touching the skin with the head of a pin. When the tender area is reached the patient winces. This reflected pain with the accompanying superficial tenderness differs from that of peritonitis in that it is present in the loin and over the sacrum and upper part of the thighs. As a rule it is relieved by deep pressure. With peritonitis there is no superficial tenderness, and deep pressure increases the pain in proportion to the amount of force used. This reflected pain and superficial tenderness may be felt over the whole of the area supplied by the segment involved—that is, in the cases of the tenth dorsal segment over a more or less horizontal band running from the middle line of the back to the middle line in front. The maximum point is about half-way be-

tween the umbilicus and the anterior superior iliac spine. Pain and tenderness in this spot may be produced by disease of the ovary and also by disease of the bowel, uterus, Fallopian tube, liver, gall-bladder, kidney, or ureter. Although often spoken of as ovarian pain, it is pain and tenderness of the skin and not of the ovary.

Neurasthenic pain is brought about by any condition which decreases the resistance of the nervous system or relaxes the control of the higher centers. Neurasthenia may be caused by prolonged pelvic pain. In conditions of nerve exhaustion trivial local causes may produce pain which would be incapable of doing so in a healthy subject. The pain may wholly be due to the nerve exhaustion. A peculiarity of such neurasthenic pains is that they are most frequent on the left side of the body, being in a proportion of about six to one.

Hysterical pain differs from pain due to a weakened resistance in the nervous centers in that it is not felt in areas corresponding to definite segments of the central nervous system, but over areas such as would suggest themselves to the patient as being natural divisions of the body, such as the foot, the knee, and the eye. The diagnosis rests on the discovery of the signs of hysteria, the peculiar anesthesia, limited pharyngeal reflex, narrowed fields of vision, and hysterogenic zones.

Whatever opinion may be held as to the nature of pain, the practical side of the subject will ever be the most prominent. If surgical treatment is found to cure the so-called chronic ovarian pain, operations will be undertaken for it in spite of any theoretical argument. The treatment of reflected pain is the removal of its cause. Reflected pain from dysmenorrhea is the one kind of so-called ovarian pain that is cured by the removal of the ovaries. In this case the ovaries are removed not because they are diseased but to stop menstruation. It is not curing ovarian pain; it is curing dysmenorrhea. The neurasthenic pain is to be met by the general treatment of the patient. Hysterical manifestation can often be changed by suggestion and moral treatment. Operations for the purpose of suggestion are generally dangerous. When an operation is done for pain, it is often the case that the patient has had some days or weeks of other treatment either in the hope of avoiding operation or preparatory to it. The operation, itself an important suggestion, is followed by a few weeks of rest, good food, and sleep. The immediate result is satisfactory. The patient goes home free from pain. If the pain was neurasthenic, when the patient goes back to the life of strain the pain is certain to return. If the pain is hysterical, unless firm moral treatment is continued the patient will return with some fresh manifestation of hysteria. The writer has treated so-called ovarian pain by ignipuncture of the ovary, by resection, and by removal of one or both ovaries. The immediate results of each of these operations have been pleasing, the patients have left the hospital delighted, but after a few weeks or months they came back as bad as ever. The only exception to this general statement has been the cases of reflected pain secondary to dysmenorrhea.

Treatment of Pruritus Ani.

Malcolm Morris (British Medical Journal) believes the term pruritus ani to be a condition characterized by intense itching about the lower orifice of the bowel. Pruritus is often a symptom, sometimes an essential disease. The possible etiological factors of this affection are numerous. It is often found in the gouty, and in those who suffer from disorders of the digestive and chylopoietic apparatus. Shellfish and strawberries sometimes give rise to it; also tobacco. Piles, constipation, fissure, ulceration, foreign bodies, and irritating discharges from the bowel or neighboring parts sometimes give rise to it. Cutaneous diseases, such as eczema, may produce the symptom. It is said that the most important predisposing cause is hyperæsthesia. General diseases producing it may be idiopathic neuroses, such as hysteria or hypochondriasis, or other affections of the nervous centers. Although pruritus ani may occur at any age, there is a certain relation of particular causes to particular ages. Thus in children the itching is likely to be due to worms. The patient generally seeks relief in violent scratching, and thus secondary lesions develop.

Pruritus ani is ofted very refractory to treatment. The first thing to do is to seek for the cause and remove it, or neutralize its action. The treatment must be appropriate to the cause. In all cases it is well to regulate the bowels and recommend a bland, but nutritious, diet. Rich foods and alcohol should be forbidden. Short courses of calomel in small doses are useful. Tonics are indicated if the patient is depressed, with a poor appetite, and failing nutrition. Thorough flushing of the system with large quantities of weak alkaline waters is often a powerful aid to local treatment. The most scrupulous cleanliness must be enjoined. The application as hot as can be borne is a very efficacious method. Some patients prefer very cold water. After bathing, a soothing or cooling remedy should be applied.

Local remedies may be classified as anodyne, antiseptic, and caustic. Cocaine may

be used in the form of a suppository, but care should be taken that the patient is not allowed to use this remedy too freely. Menthol is cooling. A strong solution of bicarbonate or bisulphate of soda applied in a poultice is an excellent sedative. Carbolic acid often acts like a charm. Oil of cade is useful. The local application of calomel is highly praised. The calomel stops the itching at once, according to the advocates of this method. Nitrate of silver is sometimes used. The patient should be kept cool in bed. Hypnotic suggestion has been tried with success. Electricity is said to have given good results. It is well, after bathing the parts, to apply a powder like bismuth, oxide of zinc and starch, or orthoform. However, each case must be studied as a distinct problem.

Treatment of Cancer.

Mayo-Robson, in the London Medical Lancet, says that we know nothing at present conclusively as to the etiology of cancer. Councilman has shown that vaccine bodies form one phase of the life history of the protozoan said to cause smallpox, and Roswell Park regards the cell inclusions in cancer as being of the same nature. At the Royal Institute, a microscope was exhibited, which showed objects distinctly under a magnifying power of 10,000 diameters. In order to understand what this means, a house-fly under this magnification would appear 24 feet long by 13 feet broad. This instrument will undoubtedly bring to light many hitherto absolutely unknown and unthought of conditions. As to the infectivity of cancer, the author states that it is both contagious and innoculable. So positively is this now known that all dressings from cancer patients should be burnt and that common use of beds and utensils should not occur. Preventive operations should be practised on precancerous conditions. Most of these are found in the skin, occurring as warts, eczematous patches, sebaceous tumors, ulcers, scars, etc. When these occupy such a position that they are liable to irritation, they should be excised, and under any conditions, the mere enlargement, without any other significant signs of malignancy, should constitute sufficient grounds for their immediate excision. The precancerous conditions in the mammary glands, such as eczema of the nipple, chronic inflammatory enlargements, cysts, and induration from traumatism. In the presence of these lesions, delay is inadmissible. Precancerous conditions of the stomach are considered under the one general heading of ulceration, the conclusion being that ulcers should be removed. The precancerous conditions of the pelvic organs of women, particularly those who have had lacerated cervices, old ulcers, leucorrhea and other forms of endometritis are discussed. Conditions which are termed precancerous in the intestines, are considered by the author and he urges the use of the electric sigmoidoscope as the only means of determining papillomatous conditions which may reasonably be looked upon as precursors of malignant change. He mentions Halsted's results in the treatment. Of these 42 8-10 per cent were positively cured, 51 5-10 per cent survived the three years' limit. Cancer of the stomach, according to the statistics of Kocher, is by no means hopeless. He has performed 97 resections of the stomach. Of these 52 cases or 65 4-10 per cent. recovered; 34 6-10 per cent. died. From 1898 to August, 1904, 45 cases have been operated on with 82 2-10 per cent. recoveries. As to definite results, 51 of the whole series died later, living up to six years. The average being 18 7-10 months. Twenty cases are still living, the oldest one of the series having been operated upon 16¼ years ago. Nineteen are in good health. Of Mayo's 43 operations, several are well more than two years after the operation. The statistics are given of the results of radical operation for malignant disease of the tongue, the larynx the intestine, the rectum, the gallbladder and liver, the lip, the penis, and the uterus. Some crusade, the author urges, should be taken against the neglect of the well-known early symptoms of early form of cancer, but of uterine malignant growth in particular.

Cancer of Uterus.

Boursier and Venot, in the Rev. Mens. de Gynec. de Bordeaux, analyse sixty-five cases, eight under their own observation. The majority occurred between forty and seventy. No fewer than twenty-six patients were still regular or passing through a not yet completed menopause. In most cases there was no previous history of local disease; in a few it seemed as though glandular metritis had become transformed into epithelioma. Heredity could not be well established. Bleeding is the first symptom it was noted in forty-four cases; in four no mention was made of the symptom. Pain was noted in twenty-seven cases and appeared late; it varies greatly in type, but is most characteristic when paroxysmal and intermittent. The discharge is serous and clear at first, becoming pink, sanious, thick, sero-purulent and ultimately fœtid. This last condition, and also cachexia, are very late, and hence useless as aids to early diagnosis. A simple clinical examination is never sufficient. Dilatation and examination of the interior of the uterus with the finger and the use of the curette are always necessary, but the examination of scrapings

cannot always make diagnosis decisive. Rapid return of bleeding after the application of the curette implies cancer rather than metritis; if hæmorrhage ceases after short treatment with the continuous current there can hardly be malignancy. When diagnosis, is assured, abdominal hysterectomy is preferable to the vaginal operation, as in the latter procedure the uterus may be implanted in neighboring tissues. It is only allowable when the uterus is still small and the vagina wide. The curette is of use in inoperable cases.

Suture of Wound of the Heart.

Somerville, in the London Medical Lancet, says: The operation in this case was done for two stab wounds, one between the fifth and sixth ribs and the other between the fourth and fifth ribs. The knife inserted in the latter position was observed by the patient to move up and down with each cardiac systole. He was seen about five minutes afterward and was in a state of collapse, pale and faint, and perspiring profusely. Both wounds were bleeding freely. The heart's action was feeble; the cardiac sounds were heard with difficulty. The pulse was barely perceptible and irregular in time and volume. The respirations were 36 to the minute. There was no pain beyond a smarting at the skin incisions. The operation was begun within fifty minutes after the infliction of the wounds. Two punctured wounds were seen over the precordium, the upper in the fourth intercostal space and the other in a vertical line below in the fifth space, both wounds situated between the left parasternal and the mammary lines. The upper wound was enlarged laterally in both directions, making an incision four inches in length. A vertical incision was made joining the two self-inflicted wounds, and was continued for two inches below the lower wound. The ribs and intercostal spaces were exposed, and the wound in the fourth interspace was enlarged and the pericardium exposed. It was not necessary to resect a rib. The pericardial sac was full of blood, and on removing this a wound was found in the left ventricle three-eighths of an inch in length. The visceral layer of the pericardium had retracted, making the wound spindle shaped, and the aperture was plugged with some lacerated myocardium. Blood was oozing from the wound, but the heart's action was so rapid and irregular that it was difficult to say at what period of the cardiac cycle the hemorrhage was greatest. The lacerated cardiac muscle which protruded was removed by scissors, which increased the hemorrhage. This was arrested by introducing the tip of the little finges into the wound. This steadied the heart, and the sutures were passed during diastole. The needle was curved, and was passed deep into the myocardium, stopping just short of the lining of the ventricle. Three interrupted sutures were necessary. During the suturing the action of the heart was irregular and embarrassed. After the finger was removed and the sutures tied, and a hypodermic injection of strychnine given, the heart's action improved; the pericardial sac was cleansed, a gauze drain introduced, and the wound in the pericardium and intercostal muscles was closed.

The lower wound in the fifth interspace was enlarged and was found to include the pleura and pericardium, producing pneumohemothorax; the heart had escaped injury at this point. The wounds of the pericardium and pleura were closed, a gauze drain was introduced, and sutures were inserted.

The operation lasted three quarters of an hour, at the end of which the patient's condition was bad, but in an hour it had improved. Four hours after the operation the pulse was 80 and fairly good. Soon after the operation mental symptoms developed, which fifteen days later had become so acute that it necessitated his commitment to an asylum. At that time his heart's action was good, the pulse was 80 and quite regular. The patient had fully recovered from the heart wound.

The Throat a Source of Systemic Infection in Acute Rheumatism.

Williams (Bristol Medico-Chirurgical Journal) says that acute rheumatism is an infectious disease and sums up his views as follows:

1. That there is a true rheumatic pharyngitis and tonsillitis. 2. That rheumatic pharyngitis or tonsillitis is a primary infectious disease. 3. That rheumatic fever is a secondary infection, due either to the absorption of the products of the infective micro-organisms or to the growth of such micro-organisms in the tissues, and that the infection may manifest itself in arthritis, pericarditis, endocarditis, chorea, bronchitis, pleurisy, alone or in association. 4. That in a large percentage of cases the portal of infection is in the fauces or pharynx or other region of the upper respiratory tract, but most frequently the oropharyngeal lymphoid ring. 5. That there is no proportion between the intensity of the primary local lesion and the appearance or severity of the secondary systemic complications.

Significance of Fever in Childbirth.

Ihm (Zeitschrift f. Geb. und Gynakologie) makes the statement that the height of the fever and chills intrapartum are no criterion of the seriousness of the case, but

great stress is laid upon the pulse. The pulse being high the prognosis is less favorable, even although the temperature may decline. The bag of waters being intact, patient suffering from fever, we can generally look for a favorable prognosis. He comes to these conclusions after a study of some two hundred cases of fever intrapartum. The most important factor in its etiology is the premature or early rupture of the membranes. Long-protracted delivery after the rupture does not seem to affect the prognosis unless it lasts more than three days, and the fever sets in soon after the membranes rupture. The prognosis for primiparæ is only a trifle less favorable than for multiparæ, and the latter are much more liable to have a febrile puerperium than the former when the birth has proceeded normally.

Rigor Mortis in Still-born Children.

Parkinson in the British Medical Jaurnal, says that rigor mortis may occur in utero and may pass off before labor terminates, or it may occur during labor and continue after delivery. In deaths during the latter stage of labor, where the child is expelled soon after death, rigor mortis may set in afterward.

In all cases of still-birth the character of the rigidity is the same, while in children that have been born alive the rigidity is that of ordinary rigor mortis, and the limbs stiffen in the position in which they are lying. In still-born children the rigidity always takes the same form, and the limbs are drawn more or less into the position they had while in the uterus. Rigor mortis does not always accompany still-birth, but when it is not present there are the usual signs of decomposition. The mode of death probably influences the rigidity in still birth as it does in the rigor mortis of adults.

Chorea and Rheumatism.

Lucas (Bristol Medica-Chirurgical Journal) describes the case of a young girl, aged 14, with no history of acute rheumatism, having chorea in a severe form and showing postmortem cardiac dilatation and mitral vegetations similar to those found in acute rheumatism. Cultures made from the brain substance and pia mater gave a pure growth of a diplococcus similar in most respects to Poynton's and Paine's rheumatic diplostreptococcus. Bacteriologic evidence, so far as it goes, strongly supports the idea chorea is rheumatic in origin, and the author believes that the presence of a diplococcus in the brain of his case is some additional confirmatory evidence of this. A culture made from the heart muscle, which was in a state of fatty degeneration, gave negative results, but one from the surface of the cardiac vegetations on the mitral valve gave a copious growth of staphylococcus associated with a few colonies of a diplococcus similar in every respect to those found in the brain. Microscopic sections were also made through the diseased valve, and these, when stained by Gram's method, showed a few diplococci similar in appearance to those found in the brain.

Enlargement of the Spleen from Impure Waters.

McKenzie (Journal of the Royal Army Medical Corps) says:

(1) In lower Bengal malaria is comparatively rare in places where splenic enlargement is all but universal. (2) Natives who drink filtered river water do not suffer to any great extent from enlargement of the spleen, while those who drink tank water suffer to the extent of about 80 per cent. (3) In cases of splenic enlargement examined during a pyrexial period the Leishman body is found. (4) Of the organs in which the parasite is found most are associated with the digestive system, while the remaining ones are those in which the leucocytes are known to wage war on organisms and foreign particles that are circulating free in the blood plasma. The writer comes to the following conclusions: (1) That the low fever and enlarged spleen of Lower Bengal is caused by the Leishman body. (2) That this organism flourishes in the tanks. (3) That it gains entrance to the human body through the alimentary canal.

Tactile Sensation.

Horsley, in the London Practitioner, sums up a discussion of tactile sensation with the statement that it is located in the Rolandic area. Such impressions not only consist of slight tactile sensation in the skin, but, the most important ability, to localize the point touched. In the clinical investigation of cases of anesthesia it is not sufficient to touch the patient and say, "Do you feel that?" If there is any tactile sensation he will answer "Yes." The test should be made by screening the part from the patient, and then touching the part lightly, The patient should then indicate the part that is touched. Often the localizing sense is lost, and when this is the case the lesion must be above the optic thalamus, probably cortical.

Stone in the Kidney.

Robinson, in the British Medical Journal, says that whatever the remote cause may be (food, water, etc.) the immediate cause is an error in metabolism leading to the excessive production and excretion of uric acid, calcium oxalate, or phosphates. The cohesion of these crystals in a matrix of colloid material forms the calculus. The symptoms are variable and indefinite. Three

signs stand out; pain, attacks of renal colic, and hæmaturia, but the only constant one is pain. When this is the only symptom the diagnosis is difficult, as it may be stimulated by affections of the stomach, colon, or gall bladder. Any stone free to move about in the pelvis or calices is likely to be the most painful, while a stone fixed in both pelvis and calices may exist with little (perhaps dull aching) or no pain. Stones fixed in the parenchyma may give little or no pain. An oxalate stone, which is usually rough, is supposed to cause the most pain, then a phosphatic, and last a smooth uric acid stone. The pain may be a dull ache, behind end under the last rib, or a sharp pain radiating downward into the thigh or the penis. It is only a one sided pain that is any use in diagnosis. The most typical attacks of renal colic are due to a stone travelling down the ureter. Much the same may be seen where a blood clot is passing down the ureter. Hæmaturia is far less common than is generally believed. The blood is usually mixed with the urine without clots. If the bleeding is considerable, casts of the pelvis or ureter may be found. Hæmaturia of whatever degree is not constant; its appearance may be related to exercise or jolting, and it may cease with rest. The use of the x-rays as a means of diagnosis is of very doubtful value. Oxalate of calcium should give the best shadow, and uric acid the least. A thick loin, restlessness, or the presence of blood, all prevent good definition. The best method of exposing the kidney is through a lumbar incision behind the peritonæum. The usual incision begins just below the twelfth rib at its junction with the outer border of the erector spinæ, and extends forwards for about four or five inches in a line directed towards the anterior superior spine. The incision into the kidney itself should be a vertical one about the convex border, passing well into the pelvis so that the finger can be easily introduced to make a thorough examination. Any stone found should be removed with forceps or scoop. Where the cortex is thinned and riddled with calculous particles, removal of the kidney must be done.

Tuberculosis of the Female Genitalia in Children.

Jones (Edinburgh Medical Journal) quotes Demme's report of cases at seven and thirteen months, and Murphy's statement that children have a primary tuberculosis manifested only in the external genitalia. Other authors report tuberculous vulvar tumors in a child of two years and ulceration in a child of four and one-half years. Tubal tuberculosis is quite rare, however.

Carpenter's method of combined rectal and bimanual examination has revealed genital tuberculosis in 11 cases ranging in age from fourteen months to nine years. In the youngest patient there was a hard mass in the umbilical and hypogastric regions with the right ovary adherent to it. He regarded the cases as secondary,

As regards diagnosis, he holds that (a) the most important thing is local examination of the vulva, vagina and portio-vaginalis, assisted by a bimanual examination of the uterus and adnexa under anesthesia; (b) a microscopic and bacteriologic examination of some portion of the affected tissues; (c) a similar examination of fragments from the uterine cavity after curettage; (d) the presence of tuberculosis in other organs; (e) the appearance of the ulcers; (f) duration and subjective symptoms.

Much information may be gained by recognition of tuberculosis of the pelvic peritoneum, which almost always accompanies similar disease of the genitals, and which may, according to Hegar, be detected on internal examination by nodules that are almost pathognomonic. These nodules are found chiefly on the posterior surfaces of the sacrouterine ligaments and frequently the tube has the form of a rosary with very hard nodules. A nodule in the pars uterina is a reliable sign of tuberculosis.

Acute Abscesses of the Breast.

Jillaux, in La Presse Medicale, divides them into two classes, puerperal and non-puerperal, the former being far the commoner. The writer says: On anatomical grounds abscess of the breast may be classified as (1) subcutaneous, (2) parenchymatous, and (3) submammary. The subcutaneous variety is obvious, easy of diagnosis, and responds to rational treatment. The parenchymatous variety is more important. It causes swelling, pain, and tenderness in the breast, accompanied by fever. An opening from the alveolus of the gland into the intermammary tissue is formed, and from these the pus reaches the skin. The abscess is therefore naturally opened in a "button-hole" manner. The treatment of such a condition consists in laying it freely open, allowing it to heal up from the bottom. Temporizing with a small skin incision is useless. The submammary variety is rare; it elevates the breast, which is not as a rule painful, and generally tracks down to the lower and outer quadrant of the breast.

The pathogeny of these conditions has been much discussed. According to Mascagni, the mammary lymphatics run from before backwards, finally uniting, and gaining the axillary glands. Sappey divides the lymphatics into superficial and deep. He showed that the deep lymphatics start in the lobules, and rise to the cutaneous sur-

face to join the superficial lymphatics. Such abscesses are admitted to be the result of a blood infection, in opposition to the theory that they are the consequence of an infection from the ducts. This latter is the more plausible, although the theory of blood-infection often may account for parenchymatous abscesses, as (1) when there are no fissures in the nipple; (2) when abscesses are brought on by suppression of sucking; (3) glands are seldom if ever found; (4) non-puerperal abscesses, appearing without fissures or apparent point of entry, seem to be in favor of the blood-infection theory. Three cases are briefly quoted in illustration of the article.

Rupture of Uterus During Pregnancy.

Ivanhoff, in the Annal. de Gynec. et d'Obstet., has published a series of important observations on the etiology, prophylaxis, and treatment of puerperal rupture of the uterus. The writer says that there are no true pathological changes in the tissues of the uterus over and above the physiological modifications which take place during pregnancy and labor. No special pathological change has ever been found in the elastic tissue of a ruptured uterus. Most ruptures in placenta prævia and transverse presentation labors are due to violence, whilst, after clumsy attempts at version, the chances are increased that the uterus will be ruptured even when an expert delivers the child.

He objects to Braun's decapitator as an imperfect instrument, liable to cause rupture. As a rule, a rupture caused by violence is to be found on one side of the cervix, and tends to run longitudinally, and to penetrate the parametrium between the layers of the broad ligament. Ruptures where the fetus is hydrocephalic are caused not only by the thinning of the distended uterine walls, but also through the complication being usually not detected till late in the labor. The writer supports the opinion that in contrated pelvis rupture is due not only to the distention of the lower segment of the uterus, but also to the friction of its outer surface against a point on the bony pelvis. There is likewise predisposition to rupture on the same account, the friction in earlier labors causing, Ivanhoff finds, the development of cicatricial tissue in the uterine walls. Spontaneous rupture in flat pelvis nearly always involves the supravaginal part of the cervix, and is transverse; the accident for the most part takes place early in labor. "Colporrhexis" is in the great majority of cases simply transverse laceration of the supravaginal part of the neck of the uterus. In cases of contracted pelvis, if several lingering labors have taken place and obstetrical operations performed, conservative treatment of rupture is dangerous, especially when cicatricial tissue can be detected on palpation in the supravaginal portion of the cervix. Parametric inflammation predisposes to rupture, as does cicatricial tissue, malignant growths, and arrested development of the uterus. Conservative treatment of ruptures of the uterus is unsatisfactory, surgical measures giving results twice as favorable. The latter insure permanent arrest of bleeding, and the thorough cleaning of the damaged, lacerated parts and the structures around them. The recurrent hemorrhage is not rare after conservative measures, and sepsis, more or less serious, from clots or torn tissues, very frequent. Surgery demands that bleeding vessels must be sought for and ligatured, and that the tissues and parts around the rent, and the peritoneal cavity as well when the rupture is complete, be cleaned to avoid sepsis.

Concerning Death From Chloroform.

Stiles and MacDonald (Fortschritte der Medezin) believe that inasmuch as death seldom comes as a late result of the use of chloroform as an anæsthetic, it is not improbable that there was a preexisting cause in case of such death which may be looked upon as a predisposition to the unfavorable result. Such a predisposing factor may be found in some precedent condition of disease or in a peculiar idiosyncrasy to chloroform. Liver disease is a cause which must never be overlooked. According to Guthrie, fatty degeneration of the liver is the real predisposing factor, and chloroform simply intensifies it. They say that fatty degeneration of the liver may not be due to the action of chloroform upon an organ which was previously healthy. The predisposing factor is believed by other writers to reside in diseased kidneys, a diseased vascular system, or in some other organ. On the other hand, some individuals who have severe organic lesions withstand chloroform readily. Preexisting lesions are therefore not necessarily a contraindication to the use of chloroform. It is quite probable that idiosyncrasy plays an important part in the use of this substance. Many writers ascribe to chloroform a directly destructive action upon the red corpuscles, oxidation being deficient, and this leading to the deposit of fat within the organs. The more probable explanation is to be found in its poisonous effect. Chloroform is an intense poison to protoplasm, and is thus likely to cause changes in the organs and interrupt their functions. Experimental investigations with chloroform revealed fatty degeneration in the liver, kidneys, and heart, and it probably was present in other organs, but it was not certain that the fatty

liver did not result from infiltration rather than degeneration. The symptoms of late chloroform poisoning resemble those of other autointoxications, for example, diabetic coma. There has also been observed an increase of acetone in the urine, and the most recent physiological investigations seem to show that the fat and not the albumenoids or carbohydrates is the source of this substance.

Mental Effects of Alcohol.

Robert Jones, in The British Journal of Inebriety, says that the mental effects of alcohol "differ according as they are the result of a single large dose or repeated smaller doses. The latter may have been kept well within the bounds of 'moderation,'' and yet under the stress of shock or illness they may be responsible for evidences of mental disturbance. A tendency to delusions of persecution is very common in chronic alcoholics. Visual illusions, or delusions based upon them; delusions of the grandiose, boastful, or vainglorious order; and those of a suspicious and persecutory character are almost invariably caused directly or indirectly by alcohol. Alcoholic insanity may be hullucinatory or delusional in type, both varieties tending to terminate in dementia, which in some instances may be the primary form. The most characteristic symptom of alcoholic insanity is paramnesia—a failure of memory for recent events, a loss of the quality of nerve cells by which images of past sensations are retained and consequently a defect of the power of associating ideas. This condition—with its resulting confusion of memory—is largely responsible for the deliberate and shameless lying which usually distinguishes these patients. There is also a mental restlessness and wandering, the patient being confused as to time and place. Another peculiarity of chronic drinkers is the impulsiveness of all their reactions when these become excited. Hence such patients exhibit violent temper and unrestrained license in action and speech. In one class the moral nature is much perverted, but there still remains the knowledge of right and wrong and the capacity, under a sufficiently powerful stimulus, to abstain from alcohol."

Treatment by Light After Sensibilization.

Forchhammer, in the Deut. med. Woch., says that the clinical side has been little written on hitherto, and that he is now in a position to sum up the results obtained in Finsen's Institute. In order to obtain deeper action than is possible with Finsen light, Dreyer found that by the application of certain substances, the inactive, but penetrating, yellow and yellow-green rays could be made as bactericidal as the non-penetrating chemical rays (ultra-violet). The test of the treatment was, therefore, carried out on 23 patients suffering from lupus vulgaris, and included about 350 sittings. Erythrosin, in 1 in 1,000 dilution in physiological salt solution, was injected either cutaneously or subcutaneously, according to the situation of the lupus. Four to eight hours after the injection, the light treatment was applied for from fifteen to twenty minutes. The action is generally as follows: There is mostly considerable pain, which can become so severe that it is scarcely to be stood. The injections are usually but little painful, and no swelling, infiltration, or tenderness follows; as a rule within twenty-four hours of the light exposure the pain sets in. Not infrequently the reaction of the light is like a phlegmonous process, and at times there is central necrosis. The deep reaction disappears after two or three days. The same exposure of light without sensibilization does not produce this reaction. The therapeutic result does not stand in proportion to the severity of the reaction. He has been troublesome late affections arising from the treatment. In one case the infiltration lasted for several months, and from time to time as erysipelas-like erythema accompanied it. The same disappointing results were obtained in lupus affecting the mucous membranes, for which fifty-four sittings were employed. Experiments were made to attempt to lessen the reaction by using weaker solutions of erythrosin and by applying a less strong light, but no satisfactory results were met with. He considers that excessive pain and but little therapeutic gain is to be got from this form of treatment, at all events in its present position.

Chloride of Ethyl Narcosis.

Gaudiani, in the Rif. Med., has given chloride of ethyl as a general anæsthetic in more than 200 cases, and as the result of this experience he says that the chief advantage is the rapidity with which anæsthesia may be induced—for example, 25 to 90 sec. Alcoholics sometimes resist a little longer. In only one case did the author fail altogether to induce anæsthesia, and that was in the case of a robust young man suffering from a deep-seated lumbar abscess. Narcosis is peaceful and quiet, and, as a rule, devoid of unpleasant accidents. But occasionally a temporary paralysis of respiration was noted and that in cases where every other anæsthetic would have been contraindicated. It was used in albuminurics, cardiacs, bronchitis, etc., without any bad effect. The awakening is rapid and complete. If given on an empty stomach vomiting never occurred, or hardly

ever, but if food had been taken recently vomiting was the rule; continued vomiting was only noticed twice. Chloroform or ether narcosis can easily be given subsequently. The chief disadvantage is the uncertainty, and sometimes the impossibility, of producing muscular relaxation, hence it is very unsuitable for abdominal operations. Analgesia occurs readily and rapidly, but muscular relation requires much larger doses, and when accomplished is very uncertain in its duration, so that sudden rigidity may occur just when it is least expected and least desired. In the author's opinion chloride of ethyl ought not to be used for abdominal operations, and it is obviously unsuitable for long operations. Chloride of ethyl is much safer than bromide of ethyl, but neither are suitable anæsthetics for alcoholics. Up to now 24 deaths have been recorded under bromide of ethyl.

Renal Opotherapy.

Fornaroli, in the Gazz. Med. Italiana, gives a history of renal opotherapy, with reference to the principal writings on the subject, and quotes 4 cases of his own in which the treatment was adopted. The method dates from Brown-Sequard's suggestion that all the organs of the body produced internal secretions. In myxœdema and acromegaly the theory has been applied with brilliant results. In the case of other organs, and especially the kidneys, the results obtained have been much more doubtful. Brown-Sequard found that there was no constant correspondence between anuria and uræmia, and some of his followers found that animals from which both kidneys had been removed, lived rather longer if treated with injections of renal substance or of blood serum taken from the emulgent veins than if left untreated. The differences obtained were not very great, and other observers have failed to discover any difference in favour of the animals treated by injections. Still less importance is to be attached to experiments showing that ligature of both ureters is rather less rapidly fatal than the extirpation of both kidneys. The results obtained by renal opotherapy in the human subject have hitherto been contradictory. Some considered that such treatment was useless or even harmful, others obtained better results, some of the more striking cases going much beyond what might reasonably have been expected. One observer claims to have found pyonephrosis curable by renal opotherapy. The recent researches of Metchnikoff and others on the existence and action of cellular poisons have given an explanation of and a fresh importance to the results of those who have found renal opotherapy distinctly harmful. It is no longer possible to say that the treatment gives patients another chance and cannot hurt them. The author used a glycerine-and-water extract of pig's kidneys similar to that used with good results by Dieulafoy and others. Fornaroli injected only 5c.cm. or less a day and never made injections more than once a day. One patient was a boy convalescent from acute parenchymatous nephritis, the second had suffered for six months from hæmorrhagic nephritis, the other two both had chronic nephritis, and made little or no progress under ordinary treatment. The experiments showed no useful result of the treatment by opotherapy. There was no diuretic effect and no diminution of arterial tension. On the other hand, there was a return of albuminuria in the first case, and an increase of albuminuria in each of the other 3 cases. He concludes that renal opotherapy does harm to the kidneys, which as depuratory organs have to deal with any extraneous substances introduced into the circulation.

Diagnostic Value of Rectal Examination in Children.

Mummery (British Journal of Children's Diseases) believes that the importance of rectal bimanual examination in the diagnosis of abdominal conditions of infancy is not sufficiently recognized. In adults such an examination is limited more or less to the pelvis. In infants and young children the examining finger can appreciate abdominal conditions because of the smallness of the parts. A rectal bimanual examination is of relatively greater value in children than in adults. As a rule it is unnecessary to administer an anesthetic for the examination, though it may be advisable where there is marked tenderness of the abdomen. It is best made with the child lying on its back on a couch with the thighs flexed upon the abdomen. The first finger of the right hand is used for the rectal examination, and the left hand is kept upon the child's abdomen. In this way the front and right side of the abdomen can be examined. To examine the left side the child is rolled over on its right side without taking the finger out of the rectum. In some cases additional information may be obtained by having the child held up in a crouching attitude so as to allow the force of gravity to bring in contact with the finger any tumor or diseased organ previously out of reach.

Children do not as a rule object to rectal exploration if this is gently and carefully carried out, though if any inflammatory condition is present it is better to administer an anesthetic; unless the child keeps still it is not possible to make a proper examination. It should always be the rule to examine the rectum when a child is suffer-

ing from diarrhea and tenesmus which does not readily yield to treatment. Such symptoms frequently result from morbid growths in the rectum. Chronic constipation may result from tumors, which can only be detected by a local examination. The pelvic organs in very young girls are often involved, and these can be thoroughly investigated by a rectal examination. It affords valuable aid in the diagnosis of tuberculous peritonitis. By this means the characteristic matting together of the intestines, the thickened edematous walls of the intestine, the presence of enlarged mesenteric glands and of localized collections of pus may be detected.

The Causes of Cardiac Insufficiency.

Pratt (Bulletin of the Johns Hopkins Hospital) says that Bamberger was the first to recognize that true cardiac insufficiency was due to an inability of the heart's muscle to do its work. This is not synonymous with valvular insufficiency, as the latter is usually compensated by an increase in the cardiac muscle. In cardiac insufficiency there is a disproportion between the heart's capacity for work and the amount to be done. It does not matter whether the working power of the heart be diminished so that it is unable to meet normal demands, or whether the demands made upon a healthy heart are so increased that its functional capacity is inadequate. In either case cardiac insufficiency is the result. Cardiac incompetency is due either to the inability of the heart to dilate sufficiently to receive all the blood that flows from the veins, or the inability of the contractions to propel the blood through the arteries with proper velocity. The fault lies either in a diminution of the heart's power of contraction or its power of dilatation.

The writer says many factors are concerned in the production of cardiac insufficiency, and probably almost every case is the result of combination of injurious influences acting upon the heart muscle, but disease of the coronary arteries is one of the most frequent causes. The size of the heart is proportionate to the size of the skeletal muscles, but the work of the heart is proportionate to the bulk of the body, hence in obesity an increased amount of work is thrown on the heart. Corpulent individuals frequently have small and weak muscles, hence the disproportion between the size of the heart and the work to be done is increased. Cardiac insufficiency may be due to acute overdistention of the heart produced by sudden and violent bodily exercise. In these cases of heart strain the nature of the anatomical or chemical changes is unknown. No justification exists for attributing cardiac insufficiency to nervous disturbance or exhaustion unless demonstrable lesions of the myocardium have been excluded. The circulatory disturbances which occur during the height of the febrile period in the infectious diseases are probably due less to cardiac insufficiency than to paralysis of the vasomotor center in the medulla. There is no evidence to show that fatty metamorphosis of the heart produces cardiac insufficiency. In the light of present knowledge other anatomical alterations, especially coronary sclerosis and acute interstitial myocarditis, must be regarded as the most common causes of heart failure.

Value of Stypticin.

Freund (Therapeutische Monatshefte) says that stypticin is, as should be well known by this time, the hydrochlorate of cotarnin, a base prepared from the opium alkaloid narcotin. It is closely allied to hydrastinin hydrochlorate, the hemostatic properties of which are so generally known. The author shows that the hemostatic properties of stypticin reside in its base, cotarnin, and the acid with which the cotarnin is united is of no importance—just as the anodyn and hypnotic properties of the morphin salts reside in the morphin and not in the sulphate, hydrochlorate, acetate, etc.

He summarizes the indications of stypticin as follows:

1. It is useful in hemorrhages of the menopause.

2. In hemorrhages from subinvolution of the uterus, provided the subinvolution be not due to fetal or placental debris.

3. In reflex (secondary) hemorrhages—that is, hemorrhages caused by diseases of the adnexa of parametrium, without any involvement of the uterus.

4. In congestive menorrhagia of young girls, without a pathological basis.

5. In myomata.

6. In hemorrhages during gestation, stypticin being devoid of oxytocic properties.

Stypticin has proved useful also in hemoptysis and in intestinal and vesical hemorrhage. The usually effective single dose is two tablets of ¾ grn. each, which dose may be repeated four to five times a day. Almost ten years' experience has shown that the drug, even in large doses, is devoid of bad by-effects.

Rupture of Varicocele Hydrohematocele.

Patel (Annales des Maladies des Organes Genito-Urinaries) describes the case of a man, aged 57, porter with voluminous left varicocele, which did not cause him any pain for a long time, entered the hospital and on September 5th, a diagnosis of rupture of varicocele was made, and operation performed next day.

The writer suggests that the following

conclusions can be drawn from this observation:

1. Varicocele isolated or coexistant with hydrocele can rupture. The clinical picture is very near that caused by rupture of a hydrocele.

2. Intervention in this case, consists in removing the blood clots, ligating the bleeding vessels, avoiding the spermatic artery. The hydrocele and the hydro-hematocele are finally treated.

3. The presence of a hydrocele and of a varicocele indicates operative treatment. The method of choice is that of Professor Jaboulay.

Diagnosis and Treatment of Metrorrhagia

Monod (La Rev. Med. du Canada) presents the subject from the clinical view point and divides the cases into two main classes, those which follow an acute or chronic infection of the uterus and those forms which owe their origin to a miscarriage of labor. The first class includes the metrorrhagia of injuries, of adnexal lesions, and of angioma of the mucosa.

I. 1. Metrorrhagia in virgins he attributes to masturbation, vulvitis or vaginitis. Some cases are idiopathic, and appear with the onset of the menses. Such cases are often caused by general measures.

2. Metrorrhagia at the menopause or later may be due to uterine infection or occur independently of any lesion. Circulatory disturbances due to menstrual suppression, senile alteration of the uterine tissues, disappearances of muscular contractility or sclerosis hypertrophy may account for uterine bleedings in these women. They either disappear spontaneously or must be subjected to surgical treatment. Cancer should always be suspected in these cases.

3. Adnexal hemorrhages are accompanied with much pain. Cystic or solid tumors of the ovaries but chiefly salpingo-oophoritis will be found.

4. Angiomatous metritis is a rare affection and is ordinarily known as hemorrhagic metritis. These cases can be traced to an old infection which has localized the lesion in the blood vessels. Curettage may be without avail.

II. Decidua endometritis is the cause of most hemorrhages, consecutive to the expulsion of the products of impregation. Products of conception may be present or even new growths form.

Cancer of the Large Intestine, Excluding the Rectum.

F. Eve (Clinical Journal, London) has recently given a lecture on this subject, and states that the patients are usually between thirty-five and fifty-five years of age. The chief symptoms and signs by which the disease may be recognized are as follows:

Dyspepsia.—This is sometimes the first symptom, and is readily explained by the retention of intestinal contents above the obstruction, their decomposition, and the subsequent formation of gas; the absorption of toxic substances leads to loss of appetite, nausea, and furred tongue.

Pain.—The pain occurs in paroxysmal attacks, is of a colicky character, is associated with a great deal of rumbling due to "wind," and is referred to the upper part of the umbilical region. Local pain may be present at the situation of the tumour; sometimes the attacks of pain are determined by the administration of purgatives.

Constipation.—Derangement of the function of the bowel takes three types. The commonest consists of alternating diarrhœa with constipation. In other cases there is gradually increasing constipation—a patient whose bowels were formerly regular finds it necessary to take purgatives, and, as time advances, the purgatives, in order to be effective, require to be stronger. Continuous diarrhœa sometimes occurs, chiefly in carcinoma low down in the sigmoid, and is much commoner in carcinoma of the rectum.

Hemorrhage.—This is a common symptom, but is usually small in amount.

"Ballooning" of the rectum is sometimes present, and, when obstruction has existed for a considerable time, vermicular movements of the intestine may be observed.

Tumor.—This may be movable or fixed, according to the stage of the disease. When occupying the ascending or descending colon, it may be noted that the tumor is movable from side to side, but not from above downwards. A tumor occupying the cæcum may allow of a considerable amount of mobility. When the growth occupies the hepatic or splenic flexure, it may be difficult to feel, being situated mainly under the costal margin. Again, when it involves the lower end of the sigmoid, or the junction of the sigmoid and the rectum, it is often very difficult or impossible to feel. When obstruction occurs, this often comes on gradually, and may be the first symptom. Vomiting is usually a symptom, and comes on some days after the commencement of the obstruction. Finally, abdominal distension occurs.

Treatment.—If obstruction has already taken place, the growth should be brought outside the wound in the abdomen and a colotomy performed above it. Subsequently the tumour may be excised and an end-to-end anastomosis performed. If a diagnosis is made before obstruction has occurred, then colectomy should be performed, and the ends of the bowels united.

Diabetes Insipidus Treated by Strychnine Injection.

Leick, according to the Deutsche Medicinische Wochenschrift, has treated a case of traumatic diabetes insipidus with hypodermic injections of strychnine. After a severe fall followed by a day of unconsciousness the patient, a man of 49 years with an insignificant previous history, began to suffer from much headache and excessive thirst. He passed a large quantity of urine, and drank up to 21 litres of fluid (over 4½ gal.) daily. His skin became dry and cracked, and the secretion of sweat ceased altogether. He felt "slack" and tired, and suffered from his stomach a great deal. On examination, no very marked objective changes were found. The urine was clear, slightly acid, but did not contain albumen or sugar. The quantity was greatly increasd, and the specific gravity very low.

Under a suitable diet and quinine the daily quantity of urine varied between 9,900 and 6,300 c.cm., and had a specific gravity of between 1002 and 1007. The strychnine injections were begun on April 16th. On the first day, 0.0025 gram (about 1-24 gr.) of the nitrate of strychnine was injected; on the second, 0.003 gr.; on the third day and on each day till the 25th, 0.005 gram was given. The quantity of urine sank after the first injection to 4.500 c.cm. As complaints of nausea, vomiting, etc., were made, the injections were stopped for three days. On the 29th and 30th 0.005 gram was injected; on May 1st 0.0075 gram, and on the 2d, 3d, 4th and 5th 0.01 gram was injected. Then the sickness reappeared and there was some twitching, so that it was thought inadvisable to continue the strychnine. In the meantime the daily quantity of urine had further decreased to 3.400 c.cm., and the specific gravity was 1005. On June 4th the improvement had continued, and only 2.400 c.cm. were passed daily. The patient felt well, all his symptoms had disappeared, and he had put on 9 pounds in weight. The thirst—the dry skin and dry mouth—appeared to have been permanently cured. This good result in a case of diabetes insipidus depending on cerebral trauma leads the author to advise others to try the treatment, and to publish their results.

Meningitis as a Complication of Pneumonia.

Voisin (Brit. Jour. of Child. Dis.) says that clinically, there are all degrees of intensity in the meningeal symptoms that may be met with in pneumonia, varying from stiffness of the neck and rigidity of the limbs to repeated general convulsions and coma. At autopsies the same rule holds; sometimes the meninges are coated with pus, much more commonly on the convexity than at the base; or on the other hand, there may be some slight edema and injection of the pia mater—a condition usually described as serous meningitis. The noteworthy facts are that on the one hand a purulent meningitis may be found, when no symptoms have been evident, and on the other hand intense meningeal symptoms may occur, when only the slightest lesions are found post-mortem.

These latter cases were first attributed to meningism, a dynamic alteration in the functions of the meninges; later, since Dupre's work in 1894, the action of toxins has been held responsible. This opinion seemed to be confirmed by the absence of growth in cultures taken from the fluid, until in 1897, when Levi, in a case of serous meningitis from which no organism grew, used the sensitive pneumococcic test of injecting the fluid into white mice, with the result that they rapidly succumbed to pneumococcic septicemia. Levi considered that serous meningitis was therefore an attenuated meningitis, but other writers have interpreted his results as showing that it is a hypervirulent meningitis, the cases dying before pus has time to be formed.

He has examined the fluid obtained by lumbar puncture in cases of broncho pneumonia and lobar pneumonia. Voisin says that the liquid is usually clear, but may rarely be cloudy, then indicating a purulent meningitis; the liquid is abundant and may be under high pressure; the quantity of albumin is notably increased, the heat test being sufficient to demonstrate this; he was unable to confirm either Rene Mond's opinion that serum globulin is normally present, the increase in the albumin in meningitis being due to serum albumin, or Sabraze's opinion that serum albumin is normally present in minute quantities, and is merely increased in meningitis; the percentage of chlorides is diminished but not to the extent nor with the constancy that they are in tuberculous meningitis; leucocytosis was not common, and occasionally was of a lymphocytic nature. The author believes with Concetti and Percheron that a polynucleosis in a clear fluid is found only in tuberculous meningitis when very numerous bacilli are present.

He is impressed with the fact that even in purulent meningitis, when they could be seen in stained films, they could not be grown in cultures or in animal; streptococci seemed to be modified in cerebrospinal fluid, so that it was often difficult to differentiate them from diplococci; the writer has never found Pfeiffer's influenza bacillus, as other workers have. In short,

in practically all cases of pneumonia evident changes were present in the meningeal reactions, and these changes, though of variable degree, could not be correlated with the intensity of the clinical meningeal symptoms.

On the other hand, by Nissl methods, changes were found in the cortical pyrimidal cells which appeared to vary in degree exactly with the clinical phenomena.

The mode of infection of the cerebrospinal fluid is next considered. Post-mortem pus was found in the middle ear in over 75% of the cases. Netter has clearly shown that virulent organisms may exist in this cavity, and may infect the cranial cavity without ever producing purulent otitis. The nasal sinuses are another possible route. Voisin considers also the blood as a means of infection.

The writer claims that meningeal infection is almost constant in pneumonia in children and that the termination will depend entirely on whether or not the cortical cells are affected by the poison.

Syphilitic Synovitis in Children.

Dunlop, in the Edinburgh Medical Journal, says this disease is not so rare as has usually been supposed, and that it has often been overlooked, or treated as tuberculosis or rheumatism. It may be either congenital or acquired. The author classifies the disease as follows:

1. Cases which occur in infants subsequent to an epiphysitis by continuity. 2. Those in which a chronic effusion takes place into one or more joints, especially the knees, between the ages of 8 and 15 years, and in which the synovitis is the primary and chief affection. Both these forms are congenital.

Degenerative changes take place in the bones and cartilage with or without deformity. Suppuration into the joint may occur and the periosteum may be greatly thickened. The symptoms are those of inflammation and develop rapidly. The elbows, wrists, knees, and ankles are most frequently involved, both members being affected at the same time, though the disease may be more severe in one than in its fellow. The prognosis is favorable if treatment is begun after the disease makes its appearance, especially if only one joint is involved. These symptoms refer to the disease as it occurs in infants who are the subjects of congenital syphilis, and they usually appear during the first three months of life.

In the second variety of this disease the most striking features are its insidious development, its chronic course, its symmetrical distribution, its freedom from pain and the mobility of the joints on passive movement; its association with other syphilitic stigmata, its amenability to treatment, and its tendency to relapse. The knees are most frequently affected, one usually more than the other. There is swelling from synovial effusion, but little or no pain or disturbance of function. It is often associated with other late symptoms of hereditary syphilis, especially with keratitis. Hutchinson's teeth, deafness, and nodes on the long bones are frequent accompaniments.

The condition seems to be a subacute synovitis caused by the syphilitic poison and without distinctive pathological lesions, but in some cases there are infiltration, hyperæmia, and gumma of the synovial membrane. Nodes may be felt in the capsule of the joint. Under treatment the new tissue undergoes absorption and organizes with thickening of the joint.

The diagnosis is based upon the bilateral effusion, the absence of pain, and the small amount of functional disturbance. The presence of other syphilitic stigmata, and improvement under anti-syphilitic treatment confirm the diagnosis. Treatment by rest, counterirritation, splints, and other measures used in simple synovitis have little beneficial effect. Improvement is usually rapid when mercury and iodide of potassium in combination are administered. Sublimate baths and the local use of mercurial ointment are very efficient. A case may resist all forms of treatment for months and suddenly recover. The disease is very apt to recur if treatment is discontinued.

Cancer of the Upper Portion of the Rectum.

Girard, in the Revue de chirurgie, mentions the fact that cancer may be located so high in the rectum as to be beyond the reach of the examining finger, and may require abdominal palpation for its determination. An early diagnosis is difficult under this condition, and becomes still more so when the symptoms are few and inconspicuous. A bloody or mucous diarrhœa may not occur very frequently, constipation or obstruction may be wanting, and it would be reasonable to suppose that one was dealing with an ulcerative colitis.

At a later period perforation into the bladder may take place, with accompanying pneumaturia or fæcaluria, or into other adjacent organs, and symptoms may be presented which make the diagnosis of cancer clearly evident. At such a time a radical operation would be useless and the best that can be done will be to form an artificial anus in the iliac region. In one of the author's cases the disease had remained latent a long time and then caused an abscess to develop in the cæcovesical region with

the usual phenomena of suppurative appendicitis and subsequently with perforation of the large intestine and the bladder. An artificial anus was made and a loop of the perforated intestine was excluded.

It may therefore be very difficult to recognize the nature and the exact situation of this disease until after complications have supervened. It may be necessary to perform an exploratory laparotomy, but before this is done one should make an examination with the rectosigmoidoscope of Strauss or some similar instrument. In one of the author's cases the patient himself suspected the condition and examined his stools with such thoroughness that he finally discovered a portion of tumor which when examined microscopically proved to be cancerous. An abdominal section was made and the diseased segment of rectum excised. The patient has remained without recurrence and without bad symptoms of any kind for more than two years.

Exophthalmos in the Newly Born.

Borland, in the London Medical Lancet, describes the history of a case in which the vault of the cranium showed evidence of protracted pressure; presenting a squashed appearance, the frontal and parietal bones being practically at right angles. The labor had not been instrumental. The child's face was pallid and both eyes were so markedly exophthalmic that the organs protruded like goggles. This was so marked that the sclerotic coat was seen above and below the cornea and the eyelids were unable to meet. There was no ptosis. The pupils were equal and fully dilated. A few hours after birth, an effusion of blood under the conjunctiva of the right eye was noticed. Paralysis of the recti followed but this was confined to the right eye in which the hemorrhage had been seen. On the third day an ecchymotic patch was observed on the external surface of the right upper lid. On the fifth day the paralysis of the superior rectus became less marked. On the seventh the effusion under the conjunctiva had diminished and did not encroach beyond the upper margin of the cornea. On the ninth day when the child raised the eyeball, one-third of the cornea was above the level of the inner canthus. On the tenth day the exophthalmus was no longer evident. On the nineteenth day a clot of coagulated blood came down the nostril. Three weeks after birth there was still soon a slight degree of paralysis in the superior rectus. Three years later the child was normal in every respect. The question arises whether the pressure causing this lesion was intra-uterine or not. There was no history of hemophilia. There was absolutely no caput succedaneum although the labor was moderately long. The mother's pelvis was normal. No instruments, it must be remembered, had been used, and it is difficult to understand how sufficient pressure could have arisen either from the head impinging upon the promontory of the sacrum or upon the pelvic floor. Whatever its origin, the bulk of the pressure had fallen on the right side of the cranium, there being little or no hemorrhage in the left conjunctiva. The discharge of the clot from the right nostril is perhaps to be accounted for by the fact that in children there is almost always a communication between the nasal vein and the superior longitudinal sinus in the antrum. Altogether the case was a difficult one to explain. It might arise from extreme hyperemia behind the eyeballs, or possibly to the fact that the child, on being delivered, fell to the floor, the small friable bones of the face having possibly been broken. Damage to the cavernous sinus might possibly be the cause of the trouble, but whether this was due to pressure or to inherent frailty of the blood vessels or to the condition of the blood is indeterminable. The fetal blood in that of the newly born differs in quantity and quality from that of the adult, the young infant having less blood in proportion to the entire body-weight. The author's experiments go to show that infantile blood has a higher specific gravity and higher hemoglobin percentage than the maternal blood. That the coagulation power of infants' blood is, first, very much below that of an adult's blood, and second, that this degree of coagulability is very variable.

Tabes.

Gowers (British Medical Journal) says that pain is a frequent symptom of tabes—far more common than ataxy and beginning earlier in the course of the disease. The symptoms of tabes are probably due to a chemical toxine, which results from syphilis. A ferment is produced which slightly influences the albuminous bodies in the process of their production, yet enough to convert them into nerve poison instead of a food. This toxine influences chiefly the elements of the lower sensory spinal neuron. The pains of tabes are an early and distressing symptom; they are often thought to be rheumatic. They may be classified as follows: A. Brief momentary pains, succeeding each other after a short interval in the same place. (1) Superficial. These seem to be on or just under the surface, and are usually felt at one spot. They are most common on the limbs, especially the lower legs and feet. They are extremely brief but recurring: from their character arose the name "lightning pains." They have the remarkable effect of leaving the skin *very* tender, and thus may occur where sensibil-

ity to pain has been lost. 2. Deep seated. These pains cannot, as a rule, be definitely located, but sometimes are referred to the joints. They have the same characters as the superficial pains, but are not so momentary, usually lasting several seconds. They are chiefly felt in the limbs, and they are not followed by hyperæsthesia. B. Prolonged pains, lasting for days or hours in the same place. They are most common in the trunk, and are usually deep seated, an exception being the girdle pain or sensation. They sometimes closely stimulate sciatic neuritis. A common variety is a sense of distressing tension on the tendons or muscles. Very intense pains have often a burning character. There is very seldom at any exciting cause. Widely diffused distressing sensations also occur, such as numbness, tingling, swelling, etc. In one form of the disease the pains so dominate the scene as to justify a separate classification of such cases. The author has seen eleven such cases, all in adult men, and with a specific history in nine cases. The pains were the symptom for which relief was sought: They were severe and neuralgic in character. The danger of ataxy in such cases is small.

The extremities of the peripheral nerves are thought to be the source of the pains. Only the superficial pains can be relieved by local measures. Chloroform sprinkled on lint and covered with oiled silk, is often useful. Cocaine administered electrically is sometimes beneficial. Deep injections of cocaine are of little service in pains in the softer substance of a limb. As regards internal medication the coal tar products stand above all others. Phenacetin, antipyrine, and antifebrine are the ones most used and of the highest merit. Antifebrine is certainly the most effective. Sometimes the suffering is so intense as to require morphine. Chloride of albuminum, in doses of 5 to 10 grains thrice daily seems to lessen the tendency to recurrence and the severity of the pains. Salicylates sometimes have the same effect. The use of iodides and mercury belong to the treatment of the disease rather than of the pains.

Stitch Abscesses After Uterine Fixation.

Mackenrodt (British Gynecological Journal) exhibited at the Berlin Obstetric and Gynecological Society a uterus in the walls of which were many abscesses. One communicating with the cavum uteri had for a long time caused a hematopurulent discharge. The uterine tissue felt nodular, as if from myomata. The phlegmonous inflammation and abscesses had their origin in the stitches of an antefixation performed by another surgeon for retroflexion. The kind of suture used could not be ascertained. The condition could not have been due to a perforation during curettage preliminary to the antefixation; the rupture of the large abscess communicating with the cavum uteri had occurred at a later period. Mackenrodt had met with such stitch abscesses, causing most serious trouble in many cases, after various methods of antefixation and ventrofixation, and after the enucleation of myomata.

Eye-strain.

Ranney (London Medical Times) says that a knowledge of the possible effects of eye-strain upon mental and physical development cannot be too widely disseminated.

The direct causal relationship between "eye-strain" and nervous diseases is too well established to-day to require further proof, or even to justify further discussion.

The modern methods of testing for anomalies of adjustment of the eye muscles are the only ones that can furnish us with scientific and accurate information. The time has happily passed when any oculist can instruct a patient to simply follow some object held before the eyes, and then on that test alone give a final decision as to whether maladjustment of the eye muscles exist or does not exist. Two decades ago this was about all that anybody knew about eye muscles. To-day the mere tyro would not dare commit himself on such tests.

The cure of the disease to-day is intelligently based on the search for its cause rather than on an indiscriminate use of drugs; and the prevention of diseases is rapidly becoming more important to the medical mind and also to the laity than its cure.

The detection of "eye-strain" in youth is an important step in preventive medicine, and the arrest of a nervous leak may save many a child from a permanent breakdown when an adult.

The study of facial expression and head posture is destined to become an important aid in diagnosis.

The governing boards of institutions for the feeble-minded, the epileptic, and the insane will sooner or later be compelled to investigate more carefully and earnestly than in the past the eye conditions of their inmates. The prescribing of glasses to correct errors of refraction has always been considered by the writer as vitally important in the treatment of eye-strain. It should always be done most accurately and scientifically. It is imperative to do this first, and to have patients wear glasses for refractive errors constantly for some time (whenever marked muscular errors exist)

in order to determine if they are modified by the refractive correction.

Refractive errors may cause "apparent heterophoria" in a certain proportion of cases; and proper glasses may sometimes modify "genuine heterophoria." There is indisputable proof that genuine heterophoria may coexist with refractive errors (as an independent source of eye-strain), and it may also be found in cases where absolutely perfect refraction exists.

Eye-strain cannot be recognized too early in youth. Its scientific investigation by modern methods and its radical correction may favorably modify both physical and mental development.

The neglect of an existing eye-strain may in time allow it to exhaust the reserve nerve capital of the sufferer and produce untold ills both of the body and mind. No child should ever be allowed to begin education until it is known that its eyes are properly fitted for the work.

Legislative enactment should, and surely will in time, compel an eye examination of every child before it enters the public schools.

Teachers should also be instructed in the rudimentary steps of vision testing.

Serum Treatment of Puerperal Fever.

Bumm (Berl. klin. Woch.) says: Surgical operations last a short time as compared with labor cases, and are carried out in suitable quarters as a rule and with skilled assistants while a woman may be in labor for days and subjected to numerous or indiscriminate examinations. The genital region, moreover, is very hard to disinfect properly and germs also find a ready soil in the parturient canal especially after labor. The ideal solution of the problem would be to provide a sufficient number of obstetrical hospitals in which all could be accommodated whose home surroundings militate against surgical cleanliness. Bumm thinks that the general treatment employed in cases of puerperal infection is insufficient and efforts should be made to further develop an antistreptococcus serum. In spite of all its shortcomings he has adhered to this method for ten years with extremely favorable results. The author has used various sera, beginning with Marmorek's from the Pasteur Institute, then Merck's, Tavel's, Menzer's, and finally Aronson's. Septic puerperal infection may be divided into the following clinical pictures: (1) The localized streptococcus endometritis, due to infection of puerperal wounds of the vagina and perineum; (2) the extension of the infection along the mucous membrane into the tubes, leading to a septic salpingo-oophoritis and pelvic peritonitis; (3) the extension of the germs into the broad ligament, septic parametritis; (4) extension of the infection over the entire peritoneum, septic puerperal peritonitis; (5) the extension of the infection from the placental site through the venous channels, leading to phlegmasia, pyemia, endocarditis, or septicemia. Fifty-three cases divided among these anatomical and clinical groups were treated with serum injections, with a mortality of 11 per cent. The latter figure, however, is not conclusive, as about 80 per cent. of women who present a streptococcus endometritis, eventually recover. The value of the serum lies in the fact that a more serious class of cases have recovered than would otherwise have been the case. He says that at present there is no serum which exerts any effect on tissues which have been infected by an invasion of streptococci beyond the original point of entrance. Where there is developed a general peritonitis, parametritis, pyemia, the injections are ineffectual and useless. On the other hand there is no doubt that where the infection remains localized in the endometrium, or where the streptococci are circulating in the blood in moderate numbers without having produced any lesions in other organs, the administration of the serum will serve to overcome the infection and its use is to be recommended. The comparative harmlessness of the subcutaneous injection prompts him to give the serum whenever the labor has been severe, the placenta adherent, so that it required removal, the liquor amnii decomposed, and fever present during labor,—as a prophylactic measure and he firmly believes that in this way many an infection may be avoided, or if not, at least made much less virulent. He says Aronson's sera the strongest and best.

The Technique of Lavage of the Stomach.

Neck (Centralblatt fur Chirurgie) says that in washing out the stomach, the question at this time is the danger attending the outflow or siphonage of the contents. The actual procedure consists in the introduction of a tube into the stomach; then the fluid is poured into the stomach through this tube, and then siphoned off again. In many cases this flowing out goes on easily, and apparently all of the fluid introduced comes away; but sometimes there are difficulties. Occasionally it is quite impossible to get all of the fluid flow out of the stomach, even though a large amount of solution be put in. Even moving the tube about and the consequent straining on the part of the patient fail to empty the stomach. Such difficulty is often encountered in the cases where there is a motor insufficiency of the organs, especially when complicated by

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gastrectasis and pyloric stenosis. The question of completely emptying the stomach of its contents is an important one before operating upon that organ, as any fluid that may be present at the time the stomach is opened only tends to complicate the operation. In order to avoid this complication the author has endeavored to find a safe and easy method by which the stomach may be completely emptied of its contents. In the usual way of practising lavage the patient is placed in a horizontal position, or else remains sitting up. He says that he believes in retaining either of these positions only as long as the siphonage goes on freely, and then the patient should be placed in the full pelvic position, and this will be followed in nearly every case by a return of the flow. The tube should then be slowly withdrawn (while the patient remains in this position), and as it comes out the last of the stomach contents will be withdrawn. In each case in which this method was practised the stomach was found to be completely empty at the time of operation. He has experimented extensively on the cadaver with this method, and in each instance with great success. In conclusion, he states that in those cases where the stomach is filled with particles of food, the lavage must be repeated several times before the organ is emptied.

At the meeting of the Los Angeles County Medical Association held January 6, 1905, there was present Dr. Philip Mills Jones, the brilliant editor of the California State Journal of Medicine, and the resolutions which he had prepared condemning the Journal of the American Medical Association for following the practice of advertising secret remedies provoked a spirited discussion, in which Dr. Norman Bridge defended the Journal and Dr. Simmons, and implied that there was some medical politics doing in the United States, and even insinuated that the author of the resolutions, Dr. Philip Mills Jones, himself, would bear watching along political lines. Finally the Jones resolutions were adopted with practical unanimity. Dr. Jones is a born reformer, and the idea of any person else doing wrong arouses him so that he has become almost a modern Socrates. We expect some day to see him going around barefooted like his illustrious prototype, in order to get people to quit breeding corns. Really, though, he is one of the most delightful fellows and his visits form our most reliable antidote for ennui. Dr. Dudley Tait says to Dr. Jones belongs the credit of most of the good work that is being done for the profession on the Pacific Coast.—Southern California Practitioner.

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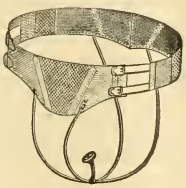

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M ft. sol.

Sig:—One tablespoonful every four hours.

Congenital Genu Recurvatum.

Lipscomb (Australnsian Med. Gazette) describes a case of this kind. The condition was bilateral and no patellæ could be felt or seen by means of the X-rays. The quadriceps extensor was shortened, and the posterior ligament of the knee-joint weakened. Attempts to straighten the limb at first caused considerable spasm of the extensor muscles, but this was gradually overcome by the continued use of internal and external splints of cardboard.

This deformity is often associated with other malformations, such as congenital displacement of the hip, and is usually congenital. It sometimes occurs, however, as the result of infantile paralysis and occasionally in old-standing cases of tuberculous disease of the hip. The patella is always small and often absent. Out of seventy-eight cases collected by Potel, thirty-seven were unilateral, the remainder bilateral. In twenty-six out of fifty cases the patella was rudimentary or absent and twenty cases also had talipes.

The treatment is necessarily a prolonged one, and Whitman recommends massage of the affected muscles, combined with more or less forcible manipulation in the direction of flexion; and where, as is often the case, the limb seems drawn forward by spasmodic muscular action, massage combined with the use of a posterior splint. Keetley recommends "supracondyloid division of the lower extremity of the femur more or less at a right angle to the shaft," but does not say at what age he would do it. Probably, lengthening of the quadriceps extensor would first be necessary. When the child begins to walk, a mechanical contrivance will be required with a stop at the knee to prevent over-extension.

The True Value of the Objections Advanced Against the Intra-Muscular Injection of Calomel in the Treatmsnt of Syphilis.

Scarenzio (Gazette Medica Lombarda) has found calomel used hypodermically most successful in the very obstinate cases that resist all other forms of mercurial treatment. He recommends using calomel prepared from the vapour, because it does not clog the syringe, using oil of vaselin as a medium, and making the menstruum perfectly aseptic. The Pravaz syringe should be used, made of ebonite and with a long needle that is not too small. The preferred location for the injection is the upper part of the gluteal muscles, a little above the great trochanter, at the beginning of the sacrococcygeal fold. It is to be recommended in phagedenic syphiloma of the tongue, malignant syphilides with early ulceration, tertiary sclerotic glossitis, severe laryngitis, rebellious secondary lesions of the tongue, and old gummata of the nervous system that resist all treatment. The writer has not found it to have bad results in cases in which proper dosage and technique were used. No marked pain was produced at the site of puncture, nor has he observed severe stomatitis, diarrhœa or embolic manifestations following its use.

A New Operation for Varicocele.

Vince, in the British Medical Journal, mentions a novel procedure for the radical cure of varicocele which he has practiced with good results in the course of the past four years. Opposed to the practice of venous resection, except in cases of very large varicocele, and objecting to free removal of the scrotum on account of the risk of hemorrhage, this surgeon has been led to rely mainly on partial resection of the cremaster. This, he points out, is the suspensory muscle of the testicle, the contraction of which approximates the gland to the pubes and thus facilitates the return of blood. Whilst elevating the testicle it compresses the whole surface of the venous plexus, and by this direct pressure drives the blood toward the pelvis. By shortening this muscle the surgeon will not only assist the useful effect of its contraction, but will also suspend the testicle in a good position.

The following are the stages of the operation: Incision of the integument from the external inguinal opening to the upper pole of the testicle; longitudinal section of the fibrous sheath of the cord over the same; longitudinal section of the exposed cremaster and isolation of the spermatic cord, which is held over the outer side of the scrotum; the cremaster having been compressed by two long forceps applied at a distance of about 6 centimeters from each other, the whole of the intervening portion of the muscle is cut away; the two margins of the resected cremaster are brought together by a continuous suture and the spermatic cord is replaced over the shortened muscle; the margins of the incised fibrous sheath and of the wound in the skin are brought together by sutures. The cremaster, the author points out, varies in thickness in different subjects, but is always developed to a degree permitting its recognition.

Croquet Ball Thirty Years in the Vagina

Orloff, in the British Gynecological Journal, mentions the case of a woman of sixty-six who was admitted into the hospital suffering from pains in the hypogastrium and vagina and a fetid discharge. Married at twenty-six, she had her first child at thirty-four, and afterward suffered from severe pains in her lower abdomen due to prolapse of the womb. These pains became much worse after her second confinement, and the

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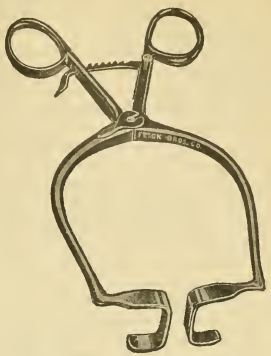

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patient then herself introduced a croquet ball into her vagina. From that time the weight and pains ceased; the functions of the bladder and rectum were not disturbed. On examination the vagina was found in a condition of senile atrophy; the finger impinged upon a round and hard body. The urethra admitted an ordinary sound, the urine was clear, and there was nothing abnormal about the rectum. On account of the senile atresia of the lower part of the vagina it was necessary to remove the round ball piecemeal, though it was quite movable in its place. A pronounced colpitis with some superficial ulceration was cured in five days. The ball had been more than thirty years in the vagina without causing any serious lesion. The wood of which it was made seemed in no way changed.

Leucocytosis in Infectious Diseases.

Bezancon and Labbe (Presse Medicale) say that the greater number of the infectious diseases are accompanied by a leucocytosis; more frequently this is a multinuclear leucocytosis, but sometimes it is uninuclear. In the saprophytic infections in a hyperleucocytosis with multinucleosis is mainly observed, as in localized inflammations, suppurations, erysipelas, pneumonia, etc., while in gonorrhœa, diphtheria and scarlatina, there is an accompanying excessive fibrinosis. The specific infections, like syphilis and tuberculosis in certain stages are characterized by a leucocytosis with uni-

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nucleosis. Variola and varicella produce very large leucocytes. Typhoid and typhus fevers and malaria show a leucopenia with a relative uninucleosis.

The curve of the leucocytosis is usually parallel to that of the disease. The return of the normal is preceded by some special modifications of leucocytic forms—uninucleosis, the appearance of transitional forms, and especially the appearance in great numbers of eosinophiles, which disappear at the beginning of the disease. Each infectious disease does not possess a particular hemoleucocytotic formula. The blood formula is valuable only as a symptom and its study serves as an aid to diagnosis. This study has a value as to prognosis; a leucopenia is a sign of extreme gravity and indicates an insufficiency of reaction of the hematopoietic organs, while an intense or medium hyperleucocytosis indicates an attempt of the organism to defend itself against invasion. Finally, the infections with multinuclear leucocytes which give evidence of a transitory effect of the body to fight the disease, confer only a temporary immunity; but those accompanied by a uninuclear leucocytosis, which necessitate a more prolonged effort on the part of the organism, confer permanent immunity.

A Sextuple Birth.

Randouin, according to the Indian Medical Gazette, reports the case of six children at a birth. The mother was a young negress. The course of the labour was normal; but for some days afterwards the mother suffered from exhaustion. Her temperature was normal until the third day, when, on the accession of her milk flow, it rose to 101 deg. F. Twenty-four hours later it had fallen to normal, and the patient made a good recovery, except that she was anxious. All the children were born alive, and made some active movements, but after a short time they all died, death being preceded in each case by a feeble cry. They all presented the same stage of development. Their combined weight was 1,730 grammes. The first born, which was the biggest, weighed 305 grammes, and the smallest but 240 grammes. Their length varied from 22 to 16 centimetres. The head was large in proportion to the rest of body in each child. The eyes were covered with the pupillary membrane; the mouth and noses were open. The nails of the fingers were scarcely recognisable, and the orbital arches were not well marked. The subcutaneous fatty layer was very thin. The genital organs were perfectly differentiated—four were males and two females. There was but one placenta which was very large but each fœtus was in a separate sac.

The Effect of Poisons on Enzymes.

G. Senter (Proc. Royal Soc., London) found in defibrinated blood, a new ferment which he called "hemase," which like other ferments, decomposes hydrogen peroxide but, unlike them, it does not give the guaiac reaction. Enzymes are all soluble in water, are precipitated by alcohol and are destroyed by heating to 60 deg. to 70 deg. F. Their activity is influenced by small traces of foreign bodies. He conducted his investigation on hemase, using various classes of poisons, Acids have a retarding effect, while alkalis retard the action of hemase but not permanently. The effect of hemase disappears on neutralization. Alkaline salts with oxidizing properties, such as $KClO_3$, have a depressing effect, which is partly dependent on the oxidation of the enzyme and partly independent of it. Reducing agents, such as H_2S, are remarkably poisonous to the action. In this connection, as showing the analogy between enzymes and colloidal solutions of certain metal, Bredig has discovered that H_2S is poisonous to the catalysis of peroxide of hydrogen by means of colloidal platinum. Mercuric chloride, bromide and cyanide vary in this respect: while the first two are exceedingly toxic, the last has little action. Paul and Kronig have shown that the poisonous action on the bacteria diminishes from the chloride through the bromide to the cyanide, and that the electrolytic dissociation of these compounds diminishes in the same order. Carbon monoxide has no appreciable poisonous effect on hemase. It is interesting to note in this connection that CO is not poisonous to the germination of seeds, nor to bacteria, nor does it effect the fermentation of sugar by zymase Of singular importance is the fact that aqueous solutions of iodine are only slightly poisonous to hemase, while solutions in water also containing KI (which solutions contain I in I_3 ions) are distinctly poisionous. As_2O_3, which is highly poisonons for the lower organisms, has a slightly poisonous effect upon enzymes. As regards the mechanism of the action of these various poisons, he believes that hemase exists in a state of fine subdivision, but he does not believe that catalysis is due to the large amount of surface resulting from extreme subdivision, since many colloidal solutions have no catalytic effect whatever. If the enzyme is supposed to exist in a colloidal state, then the action of the poisons may be explained on any one of three hypotheses; (1) Part of the enzyme is rendered inert by forming a chemical compound with the poison. (2) Part of the surface of the particles is covered with a thin layer of the poison or its decomposition products, thus preventing

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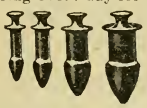

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further action of the enzyme. (3) The relation of the particles to the surrounding media may be altered in various ways (change of surface tension, alteration of relative difference of potential, etc). The second hypothesis is supported by the experience of Kastle and Lowenhart who found that the retarding action of poisons on the catalysis of H_2O_2 by metals, is due to the formation of insoluble films between the poisons and catalyzers. The author favors the first hypothesis. Some enzymes are amphoteric, which under ordinary circumstances are neutral, but in the presence of bases develop acid properties and can combine with acids to form salts.

Recurrent Knee Joint Effusion.

Bennett, in the London Medical Lancet, makes a report based upon 750 cases of the above affection, in which the effusion was recurrent either spontaneously or after another injury, usually very slight. In all the cases an interval had elapsed during which the joint was apparently entirely independent of any constitutional conditions. Of these, in 428 the symptoms of internal derangement were very precise. The proportion of male to female cases was as sixteen to one. Eighty cases were treated by operation—removal of pedunculated bodies, and of internal and external semilunar cartilages. From his experience the author

concludes that when the usual methods of treatment have failed to effect a cure, exploratory operation is indicated. Further, that extensive displacement of one or even both semilunar cartilages may take place without the recurrence of any of the symptoms which are commonly regarded as characteristic of the lesion. The cases in which the displacement is greatest give rise to the fewest symptoms. Constitutional conditions seemed to play a part in 241 cases. Osteoarthritis was present in 107 cases. Radiant heat baths, massage, and electric vibration were the only modes of treatment which seemed to have more than a palliative effect. In 23 recent cases they appeared to effect an actual cure. Rheumatism and gout were present in 30 cases, and as a rule the usual constitutional measures gave relief. In 42 syphilitic cases no permanent benefit was obtained until a course of antisyphilitic treatment was adopted. In 28 cases there was a history of gonorrhœa, 17 of the patients having obvious gleet. Operations were performed to relieve tension, aspiration effecting the purpose as perfectly as incision. An interesting class of cases were the ones where there was a history of malaria, mostly contracted in South Africa. Eighteen such cases were seen.

Diet in Nephritis.

Koster (Zentralbl. f. d. ges Therapie) says that only cases of chronic nephritis (over thirty in all) were studied, since there seemed no reason to question the value of a milk diet in acute nephritis. Four general dietaries were given. The first consisted of milk in sufficient amounts, with sage soup or oatmeal gruel, the second of milk, white of egg and starchy foods; the third milk, one egg, a moderate amount of white meat and starchy foods; the fourth of a general diet with meat both red and white. The patients were submitted to each of these dietaries in turn and their urine, as well as their general condition, closely watched.

In general, the following results were obtained:

1. In acute nephritis a rigid milk diet is indicated, and should be abandoned only after the cessation of all acute symptoms.

2. The same holds true for all acute exacerbations of chronic nephritis, as well as for impending uræmia.

3. The treatment of chronic nephritis is best begun with a strict milk diet, or one confined to milk and vegetables. After the amount of albumin and sediment, which usually diminishes somewhat under this regimen, has been constant for some time, a mixed diet, including meats of all sorts, may be permitted.

4. This holds good for all forms of chronic nephritis, except amyloid kidney, in which greater caution is necessary.

5. Œdema and ascites do not contraindicate a mixed diet if the patient desires it, but a certain amount of caution and closer observation of the patient and of his urine are necessary.

6. The same caution is important when there is a marked hæmaturia.

7. It is a matter of entire indifference whether the nephritic patient be given white meat or red.

8. It is often profitable to put a patient who is allowed a mixed diet on a strict milk diet for a short time, as a distinct and permanent diminution in the amount of albumin excreted often ensues.

9. The amount of albumin in the urine is but slightly influenced by the amount of albumin in the food. The morning urine is usually poorest in albumin; that passed immediately after breakfast, the richest. There are, however, patients for whom this last rule does not hold good.

The Nasal Treatment of Asthma.

Francis (Journal of the Royal Army Corps, London) draws the following conclusions: (1) That asthma is due to reflex spasm of the bronchial tubes. (2) That the irritation may originate in the nose, as may be inferred from (*a*) the intimate association between hay-fever and asthma; (*b*) the very common record of excessive sneezing at some period in the previous history of an asthmatic patient; (*c*) the not infrequent alternation between asthma and sneezing. (3) That asthma is not directly due to any mechanical obstruction of the nasal passages and is not commonly caused by any gross nasal lesions. (4) That some part of the nasal apparatus has a controlling influence on the respiratory center; or there is in the nose, as it were, an agency through which the afferent impulses must pass.

Question of Meat Diet in Nephritis.

T. R. Offer (Centralbl. f. d. g. Therap.) shows, that this is based upon an erroneous calculation and that with a strict milk diet more proteid is often ingested than where a moderate amount of meat is allowed. Restriction of dark meat is still advocated by many, owing to the larger amounts of extractive matter present, which is supposed to irritate the kidneys. According to the writer's accurate chemical analyses, however, the differences are so slight as to be of no practical value. When meat is roasted, a certain amount of extractive matter passes over into the sauce and this is more pronounced in the case of dark meat, so that bsefsteak would really be more permissible than roast veal.

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Treatment of Duodenal Ulcer.

Power (Brit. Med. Jour.) says that there are two classes, of which he draws the following composite pictures: The subject in the first class is usually a man in the prime of life who is suddenly seized with severe abdominal pains; within a hour he is lying on his back, afraid to move, showing all the evidences of perforation. He cannot locate his pain but complains of its being worse along the upper half and down the right side of the abdomen. The abdomen is not distended but is not entirely motionless. It is everywhere tender and tympanitic. Liver dulness may or may not be present. Such is the picture of a patient whose ulcer has perforated. That of a man who has a pronounced ulcer but who has not yet suffered perforation is more interesting because more difficult to interpret. The patient is often between fifty and sixty years. He has been a martyr to indigestion and has had atrocious pain which is relieved by vomiting. He has gone from place to place seeking a cure; he is usually constipated; has cold extremities and extreme mental depression; the abdomen is loose; the subcutaneous veins may be enlarged; the stomach is dilated. Twenty-five or thirty years ago, if the history can be obtained, he vomited considerable quantities of blood; he recovered slowly and has never been well since. This is a case of a patient who has partially recovered from the cicatrization of an old ulcer. How many have been allowed to die of such a condition in the belief that they had malignant disease of the stomach! Duodenal ulcer is usually single, small, conical in shape, situated in the first part of the duodenum near the pyloric fold. Adhesions to the parts contract, reducing the duodenum and at the same time involve the liver, the gall-bladder, the pancreas, or the great blood vessels and the portal system. The means of distinguishing between these cicatricial conditions and malignant growth have developed in recent years, the operation of gastrojejunostomy done for temporary help only, having turned out not uncommonly to give permanent relief. He further says: (*a*) Duodenal ulcers are not very uncommon; (*b*) so far as he has seen them, duodenal ulcers are single and more frequent in men than in women; (*c*) duodenal ulcers may penetrate and cause acute symptoms, or they may heal, and by cicatrization lead to symptoms of chronic duodenal obstruction; (*d*) the sequelæ of a healed ulcer may be so remote that the symptoms are mistaken for those due to cancer of the pylorus, and the patient is allowed to drift from bad to worse under the erroneous notion that he is bound to die. (*e*) there is no means of recognizing the existence of a duodenal ulcer, in a great many cases, until it perforates or until the results of its cicatrization becomes manifest.

School Diphtheria.

Thomas (British Med Journal) discusses the incidence of diphtheria and the schools of the metropolis and concludes that:

1. Diphtheria is spread by schools to a certain and considerable degree.

2. It is spread by direct personal transmission.

3. It can be checked by swabbing and excluding children carrying diphtheria organisms.

4. These children have chiefly mild, actually suffering cases.

5. Their age is usually between five and eight years.

6. Pseudodiphtheria organisms may be safely ignored.

7. School closure for diphtheria should be looked upon as a confession of impotence and defeat.

8. There is urgent need of greater recognition even on the part of medical practitioners of the role of slight cases and carriers. In many cases children sent home as having diphtheria bacilli in their throats are sent back to school by the family physician as not having diphtheria.

9. All contacts with diphtheria should be vigorously swabbed before being allowed to mix with the general population. Disinfection of homes without this protection is futile.

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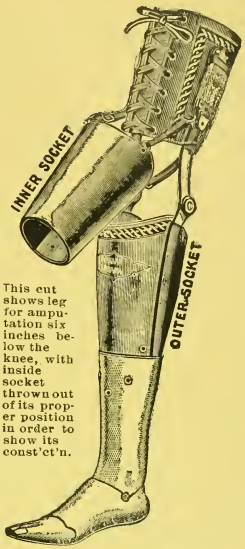

This cut shows leg for amputation six inches below the knee, with inside socket thrown out of its proper position in order to show its const'ct'n.

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10. Much greater facilities for bacteriological examination need to be provided.

11. The annual reports of medical officers of health dealing with such facts as these, should be made a means of education on these points, and be distributed to all members of the medical profession in the sanitary district.

Morphine in Heart Disease.

Grassman (Muenchener med. Wochenchrift) sums up his conclusions as follows: Used in therapeutic doses, there is no ground for considering morphine a heart poison and condemning its use in heart disease. Cases of sudden death, occurring shortly after the hypodermic administration of morphine in heart disease, are to be classed with those dying of so-called heart failure during chloroform narcosis—their cause is not understood.

As to the indication for the use of morphine in heart disease, authors differ widely, and further careful clinical study is desirable.

In "weak heart," and heart disease associated with diseases of the rerpiratory system, as well as in endocarditis and myocarditis, morphine should be used very cautiously. In purely nervous angina pectoris, morphine may be unhesitatingly prescribed. In organic angina pectoris small doses of morphine are indicated.

In all grave attacks of cardiac asthma morphine is imperative, but in chronic dyspnoea it should be avoided as long as possible.

Morphine may be prescribed when digitalis and other heart remedies fail to act promptly. In cases characterized by nervous irritability, insomnia and great depression, morphine is a valuable remedy, preparatory to the use of digitalis similar to its use before chloroform narcosis.

Carcinomatous Papillary Ovarian Cystoma.

Levi, in the British Gynecological Journal, draws the following conclusions: Carcinomatous cysts of the ovary may develop at any period of life; they originate in the cells of the tubes of Pfluger, as do also the papillomata of the germinal epithelium of the ovary; histologically cancerous cysts are difficult to distinguish from papillomata, but can be recognized when masses of atypical epithelial elements are found; a papilloma which at first has a benign course may degenerate into a carcinomatous form; the rupture of a cystic tumor into the peritoneal cavity may pass unobserved owing to the absence of definite symptoms; the liquid of carcinomatous cysts apart from sup-

IN THE TREATMENT OF

ANÆMIA, NEURASTHENIA, BRONCHITIS, INFLUENZA, PULMONARY TUBERCULOSIS, AND WASTING DISEASES OF CHILDHOOD, AND DURING CONVALESCENCE FROM EXHAUSTING DISEASES,

THE PHYSICIAN OF MANY YEARS' EXPERIENCE

KNOWS THAT, TO OBTAIN IMMEDIATE RESULTS, THERE IS NO REMEDY THAT POSSESSES THE POWER TO ALTER DISORDERED FUNCTIONS, LIKE

"Fellows' Syrup of Hypophosphites"

MANY A TEXT-BOOK ON RESPIRATORY DISEASES SPECIFICALLY MENTIONS THIS PREPARATION AS BEING OF STERLING WORTH.

TRY IT, AND PROVE THESE FACTS

NOTICE.—CAUTION.

THE success of Fellows Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these imitations, finds that no two of them are identical, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnia in solution, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the original, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. FELLOWS."

SPECIAL NOTE.—Fellows' Syrup is never sold in bulk, but is dispensed in bottles containing 16 oz.

MEDICAL LETTERS MAY BE ADDRESSED TO

MR. FELLOWS, 26 CHRISTOPHER STREET, NEW YORK.

The Sarah Leigh Hospital.

NORFOLK, VIRGINIA.

A private Hospital designed and constructed with every modern convenience and equipment. Pleasant and quiet surroundings. Rooms single or en suite. Private baths.

Intended especially for Surgical, Gynecological, Obstetrical and Rest Cure cases.

For information address one of the following:

Dr. Southgate Leigh, Surgeon in Charge, **Dr. Stanley H. Graves,** Associate,
Miss M. A. Newton, Superintendent.

puration is not of a septic nature—at all events the germs it contains are not pathogenic; the prognosis of every ovarian tumor ought to be guarded, because it is not possible to exclude with any certainty the possibility of malignancy; the treatment should be the operative removal of all that is suspected: in recurrent and in very advanced cases complicated with numerous metastases it is better not to interfere, as the operation may have a fatal result.

Case of Precocious Menstruation.

Wischmann (Norsk. Mag. for Laegevid) mentions the case of a girl born September 4, 1889, menstruation first occurred February 24, 1899. During the following sixteen months, twelve menstruations were observed. The child is very strongly developed and shows no signs of rachitis. The mammæ are conspicuously large and present distinctly palpable glandular tissue. The hair is abnormally developed upon the mons veneris, around the nipples and the axillæ. No similar cases have been known in the family. The author cites other cases of similar character in literature and calls attention to two points which are of interest to the general practitioner:

1. The prognosis as to the persistence of the menstrual flow is doubtful.

2. The physician must warn the parents that sexual life may soon begin to become manifest so that even in a child of nine years pregnancy may occur.

Treatment of Vesical Fistulae in Women.

Grouzdew (Allgemein Wein. Med. Ztg.) gives the abstract of 30 operated cases. In the first dozen cases of the series only five were cured after one, two or three operations. In the second series of 18 cases there were 15 cases and only three of these required one or two subsequent operations.

In all cases the "splitting" operation was done. The mucosa of the vagina was dissected from that of the bladder around the circumference of the fistula for different distances depending on the size of the fistula, mobility of the margin, and other considerations. Without including the bladder mucosa the bladder opening was closed with a continuous suture of fine catgut, the thread being passed only through the submucous layer. Sometimes two layers of suture were employed at this stage and in this region. The opening in the vagina was closed with interrupted sutures of silk or wormgut. The difference in results in the two groups of cases did not depend on a difference in the operation, but on a difference in the post-operative management of these cases.

FOR THAT YELLOW PERIL
-HEPATIC TORPOR
- a remedy
Sulpho-Lythin

A True Hepatic Stimulant and Eliminant

RESTORES functional activity of the Liver by increasing the secretion of the Hepatic Cells and does not irritate the duodenum to the possible tumefuction and subsequent obstruction of the bile ducts, as do calomel, podophyllin and effervescing salines.

RESTORES and preserves normal alkalinity of the blood.

RESTORES full normal Renal Function.

IS A SOLVENT of Uric Acid and promotes its elimination.

Samples and Literature to Physicians on Request.

LAINE CHEMICAL CO., Manfg. Chemists,
55 Liberty St.
New York City

Dr. G. M. SULLIVAN, of Lewistown, Mo., writes: "I am more than pleased with SULPHO-LYTHIN. In an experience of 35 years I have not found its equal as a Hepatic Stimulant and Uric Acid Solvent and Eliminant."

He believes in the permanent catheter introduced into the lowest portion of the bladder. If the fistula is situated laterally the patient must lie on the opposite side. In low fistula the patient should lie on her abdomen. The catheter should be watched, and, in case of obstruction from mucus or urates, removed, cleansed, boiled, and reintroduced. The patient is kept in one position in bed nine days, and on the tenth day the vaginal sutures are removed and the patient is now allowed to change her position. The catheter is removed on the 11th day and the patient is advised to urinate frequently. On the 12th day she is permitted to leave the bed.

He says that the vastly better results in his second series of cases have been due to a strict adherence to this method of post-operative management.

Fibro-Myoma of the Uterus.

Knapp (Berliner Klinik) has found that 40% have myomatous growths, but as most of these tumors are benign only about 5% of women are operated for them. They are rarely found before the age of 30. Their symptoms, if symptoms there be, are local and general the former are due to mechanical disturbances to the evacuations of bowel and bladder, pressure necroses and fistulæ. Pain, change in the type of the menstrual flow, hemorrhage, vesical and bowel dis-

R&O DEVICE FOR THE APPLICATION OF GLYCO-THYMOLINE TO THE NASAL CAVITIES

GLYCO-THYMOLINE
FOR
CATARRHAL CONDITIONS
Nasal, Throat
Intestinal
Stomach, Rectal
and Utero-Vaginal

KRESS & OWEN COMPANY
210 FULTON STREET NEW YORK

Imitation or Substitution.

A physician in speaking of Glyco-Thymoline imitations, remarked that they reminded him of Oleomargerine—"which might be used when it was impossible to get butter."

"Imitations are at best poor substitutes and I never use them. I want the results that invariably follow the use of Glyco-Thymoline—genuine." Sole Agents for Great Britain,
Thos. Christy & Company, 4, 10 and 12 Old Swan Lane,
London, E. C., England.

turbances due to pressure are the chief symptoms; pressure necrosis with fistular formation and other complications have been observed. Change to malignancy is not common, but when it occurs, the masses grow rapidly and are characterized by many metastases. Atrophic and other degenerative processes are much commoner, occurring especially after the menopause: some of the latter, such as myxomatous, cystic and suppurative degenerations will require operations. The general symptoms are due to hemorrhage and toxemia; and include complications of nearly all the organs of the body; kidney changes especially are quite common. The indications for operation are the degree of hemorrhage, intensity of pain and the importance of the mechanical disturbances, possibly malignancy, and the retrograde changes above mentioned. Of the radical abdominal operative procedures suprapubic vaginal amputation is probably the best as it is simpler and leaves a smaller amount of the uterine tissue behind, but wherever possible vaginal operations should be performed, on account of the smaller danger. Concerning the expectant symptomatic treatment it must be applied, wherever indications exist for operation; ergot, hydrastis, gossypium and hamammelis are valuable drugs; vaginal tampons, local applications of cold, heat, douches, etc., are valuable. Knapp warns against injection of liquor ferri subsulphatis and "moorbaths." General and dietetic treatment should not be overlooked. These measures should not be kept up too long as to endanger the life of the patient.

Miscellaneous.

The Tri-State Medical Association of the Carolinas and Virginia will meet in Greensboro, February 28th and March 1st, instead of February 22nd, as formerly announced. This change was a necessity according to the views of the committee of arrangements. The Benbow Hotel will be headquarters for the Association. Dr. J. W. Long, chairman of the committee of arrangements, with the assistance of the other members, is making a great effort to make this approaching meeting a great success.

Death of Dr. A. G. Carr.

On Friday, January 13th, 1905, occurred the death of Dr. A. G. Carr. For three months he has been in poor health and has often expressed himself as wishing that the end would come so that he might rid himself of his sufferings.

At 6.45 p. m, he went to his room and committed suicide with a 32-calibre pistol sending one shot into his brain.

Dr. A. G. Carr was 58 years old and was the son of the late John Wesley Carr of Chapel Hill. Graduated from the State University with high honors and afterwards studied medicine in Philadelphia. He first practiced medicine in Raleigh, then moved to Cary and about thirty years ago went to Durham. For the past twelve years he has been associated with Dr. J. M. Manning. The deceased had been a member of the North Carolina Medical Association for a number of years. One of his sons is surgeon at Johns Hopkins hospital, Baltimore. Dr. Carr has always enjoyed a large practice, and was held in high esteem by the medical fraternity of North Carolina.

There is but one living brother, Col. Julian S. Carr, one of North Carolina's best known and wealthy citizens.

There are three living sisters as follows: Mrs. Wm. A. Guthrie, of Durham, N. C.; Mrs. Emma Heitman, wife of Dr. J. F. Heitman, of Trinity, Randolph County, and Mrs. Lizzie King of Chapel Hill. He is survived by his wife who was Mrs. Annie Moore, nee Parish, a sister of Col. E. J. Parish, and three sons.

Forced to Do Right.

Your attention is respectfully called to the peculiar and particularly significant wording of a portion of a letter printed in the last number of the Journal. "If you can . . . . . force the Trustees of the A. M. A. to adopt a policy of ethical decency in the conduct of the Association Journal, etc." Think of it! If our State Society can—what? Compel, merely by printing a little of the truth—for we have by no means said all that could be said—compel a body of such honorable men as compose the Board of Trustees of the American Medical Association to do—what? Anything wrong or dishonorable? No, just the opposite. Think of it. Let it sink into your mind and realize just what that means. Think that such men as Drs. Happel, Grant, Marvel, Montgomery, Johnson, Wright, Welch, Porter, and Harris, our servants to whom we have delegated the conduct of the Association and its Journal, must be forced to do the right thing; that a component society must fight to compel these gentlemen to do only their plain duty. Why, one would imagine that wild horses or the torture of the sharpened stake could not induce them to do otherwise. It is impossible to believe that these gentlemen would, as individuals, dream of doing the things that they are doing as a board. Are they crazed with the gold lust? Are they indifferent to the result that must follow upon the course they are leading the Journal of the American Medical Association? Are they blind to the fact that they are making the Principles of Medical Ethics promulgated by the American Medical Association a ludicrous thing? Has any one of these gentlemen the courage to come out and say that he believes for one instant that he would not be "promoting the use of a secret remedy," if he endorsed the following statement taken from the advertising pages of the Journal whose business it is his to guide and guard: "Destroy the gonococcus by internal medication . . . . . the perfect genito-urinary disinfectant. Benolgur capsules . . . . containing the active principles of gum benzoin and of the essential oil of gurjun." From this who can tell what the stuff contains and in what amounts? Is there a pathologist in all country who could be found to endorse the statement that it is a "perfect genito-urinary disinfectant?" Gentlemen of the Trustees, are the few dirty dollars which the Association receives for this advertisement an equivalent for the loss of dignity, honor and prestige which results from the spectacle of the great American Medical Association advertising and promoting the use of such nostrums?—Cal. Journal of Medicine.

Nasty Fraud.

Some months ago the Journal published an editorial with this caption. It referred to a manufacturing concern that put out a preparation and published a lieing formula. At first they said it contained "lithium methaminate," and when we found that this was simply an outrageous insult to one's

Awarded
GOLD MEDAL
Louisiana
Purchase
Exposition

The Standard Antiseptic

LISTERINE

Awarded
GOLD MEDAL
Lousiana
Purchase
Exposition

A non-toxic antiseptic of known and definite power, prepared in a form convenient for immediate use, of ready dilution, sightly, pleasant, and sufficiently powerful for all purposes of asepsis; these are advantages which Listerine embodies.

Listerine
Dermatic Soap

An antiseptic detergent for use in the antiseptic treatment of diseases of the skin.

Listerine "Dermatic" Soap contains the essential antiseptic constituents of eucalyptus (1%), mentha, gaultheria and thyme (each 1-2%), which enter into the composition of the well-known antiseptic preparation Listerine, while the quality of excellence of the soap-stock employed as the vehicle for this medication, will be readily apparent when used upon the most delicate skin, and upon the scalp. Listerine "Dermatic" Soap contains no animal fats, and none but the very best vegetable oils; after its manufacture, and before it is "milled" and pressed into cakes a high percentage of an emollient oil is incorporated with the soap, and the smooth, elastic condition of the skin secured by using Listerine "Dermatic" Soap is largely due to the presence of this ingredient. Unusual care is exercised in the preparation of Listerine "Dermatic" Soap, and as the antiseptic constituents of Listerine are added to the soap after it has received its surplus of unsaponified emollient oil, they retain their peculiar antiseptic virtues and fragrance.

Awarded
Gold Medal
Louisiana
Purchase
Exposition

A sample of Listerine Dermatic Soap may be had upon application to the Manufacturers.

Lambert Pharmacal Company, St. Louis, U. S. A.

Awarded
Gold Medal
Louisiana
Purchase
Exposition

intelligence, that there is no such chemical, we mentioned the fact editorially and expressed our views on the standing of a concern that would do such a thing. The advertisement with the absurd "formula" was appearing in the Journal of the A. M. A. also, and when this matter came out the "formula" was dropped; but the Journal continued to print the advertisement. For some months the "ad" was run without any formula, but in a recent issue of the Journal we note that a new "formula" has made its appearance. This time the same identical name is used for the stuff—uriseptin—but it is said to contain "Lithium Comp. with amido-formaldehyd." On inquiry we are advised that this is quite as meaningless to the chemist and pharmacist as was the imaginary chemical first given as entering into the composition of the "remedy" (Heaven save the mark—a remedy!) in question. We are assured by the Chairman of the Board of Trustees of the A. M. A. that a verified formula is filed with the copy for each and every advertisement of a proprietary mixture. If this is the case it is certainly imperative that the Trustees discharge the person who "verified" the formulas which this concern is filing with the Association. It is ludicrous, or would be if it were not so pitifully undignified, to see the great American Medical Association so carried away with "frenzied finance" that it must needs sell the Association's birthright for a mess of pottage!—Cal. Medical Journal.

"My Son, Make Money; Honestly, If You Can, But--Make Money."

Let us once more glance at the financial statement made by the Trustees of the A. M. A., at the last meeting and see whether further understanding may have come from reflection. In August the State Journal criticised the financial statement; we disagreed with the Trustees in crediting the profit of the Association (some $38,000) to the Journal, and asserted that this profit should properly be credited to members' dues and was the remainder after paying from the dues collected the expenses of the Association and some $14,000 to the Journal account. We also called the attention of the Trustees to the fact that the Association Journal was not being conducted in a very ethical manner, and that it openly violated those ethical principles which have been promulgated by the Association for the guidance of physicians.

To these words of criticism the Chairman of the Board of Trustees took exception. His letter in reply to them was printed in the November Journal, and after reading carefully his letter, it would seem that Dr. Happel has clearly demonstrated the truth of our original contention. For the time being the portion of the correspondence relating to the quality of advertising in the A. M. A. Journal will not be discussed, except to say that up to the present time the Trustees have not published a statement, as we requested, setting forth when and where the formulas we mentioned were published in the pages of the Journal.

On page 329 of the November Journal Dr. Happel says:

"I am surprised that you will attempt to make your readers believe that the "dues" is no part of the Journal income. You do not appear to be aware of the fact that the $63,237.48 entered as membership dues is the amount paid by members of the association as subscribers to the Journal, receiving the Journal by virtue of paying their membership fees of $5.00 each year and that for 1903 the above amount of $63,237.48 was collected."

While the above quotation is a little confused, Dr. Happel appears to be trying to make the dues appear as subscriptions to the Journal. If this were true, all subscribers might claim membership, for they could claim that membership cost nothing and was a sort of premium attached to subscription. As a matter of fact, the reverse is the case; membership costs $5 a year, and the Journal is sent as a part of the benefit attaching to such membership. Quite naturally a portion of the membership fee should be paid over to the Journal to cover the cost of sending the publication to each member; let us see what this amount is: The report states that $63,237.48 was received from members' dues, less collections. It also states that the Association expenses, aside from publication expenses, amounted to approximately $11,000, which amount is properly chargeable to the receipts from members, leaving, in round numbers, $52,000 as the net income from the Association revenues derived from dues. Dr. Happel states, both in the report and in his letter, that the net income of the Association, including all receipts and all expenses, was; roughly $38,000; this amount is $14,000 less than the net income from dues, so it seems to be apparent that the cost of sending the Journal to the members amounted to about $14,000. Thus we learn that of the $5 which each member pays each year, about twenty-five cents is required for Association general expenses, $1.10 for the cost of sending him the Journal, and $3.65 is invested in Chicago real estate, school bonds, etc.

Dr. Happel also says, in the same communication:

"With a profit of $38,000.00 and an income of $88,000.00 from advertising (using round numbers) where would the Journal have been without the advertisements? The answer is (for fear you will not give it to your readers) $50,000.00 on the debit side of the ledger."

Now let us see whether, on analysis, this is found to conform to the facts as given in the report. We did not suggest that the Journal cut off all its advertising: that would be extremely foolish, for about two-thirds of it is perfectly ethical, and doubtless most of the other third could be made so or its place supplied by other advertising that would be decent. But let us, for the sake of argument, consider the Association as publishing a journal without advertising, as suggested by Dr. Happel, and see whether it would result, as he suggests, in a deficit to the Association of $50,000. The revenue of the Association would be; first, $63,237.48 from dues, for it seems safe to assume that members do not become such because of the advertising pages of the Journal. It would also seem safe to assume that subscribers do not subscribe to the Journal for the single purpose of reading the advertising pages; so we may add $52,567.38 in subscriptions. The rent from Association property and the interest on bonds are not dependent upon advertising, so we have $2,745 more. Let us summarize:

Dues	$63,237.48
Subscriptions	52,567.38
Other income	2,745.00
Net income	$118,549.86

Thus we see that, with no advertising income whatever, the Association would receive $118,549.86 annually. Now let us examine the expenses. In the report, the publication expenses are given as $166,529.13. At first glance this seems to substantiate Dr. Happel's contention. But let us see. The Journal, for the last six or eight months, averages about one-half advertising pages, and, of course, if these are cut off the expense attached to them is also cut off. This reduction would not amount to one-half, for it costs a little more to print the reading pages than the advertising pages; it would probably be about two-fifths reduction, or $62,611.66 (about), leaving the cost of publication $103,917.47. To this must be added Association expenses, about $11,000.

Income	$118,549.86
Expense	114,917.47
Net income	$ 3,632.39

Gastric Irritability

In inflammatory, ulcerated and disturbed conditions in general of the gastric membrane, Physicians will find

BURNHAM'S CLAM BOUILLON.

BURNHAM'S CLAM BOUILLON

(Absolutely Free from Any Preservative)

an acceptable and soothing nutrient. It gives the greatest amount of food energy with the least labor for the digestive organs. It is soothing to an irritated stomach when other foods cannot be tolerated. Owing to the process of manufacture the product is partially predigested and thoroughly sterilized. The rapidity with which it is absorbed gives the stomach walls a longer period of rest than can be secured through the use of ordinary nutrient agents.

It has been known and prescribed for years by many prominent Physicians. It presents an appetizing appearance and a tempting odor. It is a decided change from the ordinary delicacies for the sick room. It is enthusiastically welcomed, as the average layman knows the value of the juice of the clam as beverage, as a strengthening and tonic in its effect, both to the stomach and the nervous system. An especially attractive feature about **BURNHAM'S CLAM BOUILLON** consists in the fact that it is bottled in glass, without any preservative whatever, being sold in pints and half pints. This assures not only cleanliness and convenience in the serving, but perfect purity and freshness while using in the sick room All the leading apothecaries and grocers sell it.

Manufacturers and Packers,

E. S. BURNHAM CO., 53 to 61 Gansevort St, New York.

Wall Cabinet & Vibro-Massage Machines

They work on Cells, Alternating Current or Direct Current. **Our up-to-date Wall Cabinet gives 12 different Currents;** other Wall Cabieets **give 5 only.** They are **out of date.**

Our up-to-date Massage Machine gives both **Massage** and **Electricity.** It is a Combined Stationary and Portable outfit. It gives two strokes for each revolution of the motor. Finest in the world.

Send for catalog of Static and X-Ray Machines, Portable, Cautery, Galvanic and Faradic Batteries, Electrodes, etc.

WESTERN SURGICAL INSTRUMENT HOUSE.

Salesroom 69 Dearborn St. Factory 59th and Wallace Sts
CHICAGO.

Apparently, even with no advertising pages, the Association would not be $50,000 in debt, as suggested by Dr. Happel. But let us add, as income, two-thirds of the advertising receipts and charge to expense two-thirds of the amount which we reduced the expense account in the report. We have:

Income	$177,212.52
Expense	156,658.57
Net income	$ 20,553.95

It is difficult to see, from the figures which the Trustees give, why it would not be possible for them to conduct the Journal in accordance with the Principles of Ethics, do all the work the Association is now doing, and still make money. And the dollars thus made would be good, clean, wholesome dollars, without taint or stench. It is true that the reserve fund would grow more slowly, but it would grow, and in the end be a monument to good business sense as well as to good ethics, instead of being an apparent illustration that the accumulation of wealth will counterbalance disregard of ethical principals.—Cal. Journal of Medicine.

On the Choice of a Mercurial Agent in "Specific" Treatment.

Mercury is and always has been the known preventive of the serious consequence of syphilitic infection, and its supposed ill effects on the system are now found to be greatly exaggerated. In my experience, any possible harm resulting from its administration, can be prevented by the selection of a suitable preparation.

The real cause of the specific action of mercury, is still a matter for discussion amongst therapeutists; it seems however to act largely mechanically, for we know that whatever salt is used per os or hypodermically, it is quickly reduced to the metallic state, and anything which retards this reduction prevents prompt effects. It is a mistake to prescribe such caustic mercurial agents as the mercuric chloride or iodide, in pills or aqueous solution, because they attack living tissue, and it is also nature's protest against such violence, which sometimes causes irritation when calomel, proto-iodide, bin-iodide or bichloride are administered by the stomach.

Mercury seems to have some undetermined connection with leucocytosis, yet long continued treatment with mercurial preparations results in a peculiar anemic condition and an abundant nourishing diet is necessary to compensate for the untoward effects referred to. The fact that the ordinary mercurial treatment cannot be long continued, shows that some violence is being done to the blood corpuscles, and here it is that iodides, acting on the engorged lymphatics are indicated, to assist metabolism and carry off the accumulations of effete cell-matter, resulting from the breaking down of giant cells, especially characteristic of tertiary symptoms where gumma or foci of cheesey masses accumulate, while new cell tissue is developed too slowly to compensate for that displaced.

Some patients are particularly sensative to mercury or its salts and it is in searching for some preparation of mercury which will be tolerated by these hypersensitive subjects, that I have come to prefer the bin-iodide dissolved in oil, first suggested by Panas and Fournier of Paris.

Proto-iodide, bichloride of mercury, gray powder, calomel, and all soluble or insoluble salts of mercury, are all open to the same objection when administered by the stomach, viz: irritating effects on the alimentary canal, and where the dose is long continued or pushed in order to control syphilitic accidents more quickly, salivation is likely to follow. It is true that their irritating effects can be controlled to some extent by opium, but this locks up the secretions and does the exact opposite of what is required for patients of this class.

The working formula of the biniodized oil proposed by Professor Panas was not very practical, because red iodide of mercury is only so slightly soluble in oil, that large doses had to be administered (strength about 1-600). Chapelle, a chemist connected with the laboratory of the Paris Municipal Council, has improved on this, and his formula contains 1 per cent. of mercuric iodide. I have found this 1 per cent. bin-iodized oil to have advantages over any other mercurial preparation.

In order that patients may not know what is being prescribed, this mercurialized oil is prescribed as "Cypridol" in capsules of 20 centigrams or can be used for intramuscular injections. It passes through the stomach unaffected or even undissolved, so that it in no way effects the digestive processes, and in the small intestine it is rapidly emulsified without producing any pain or irritation whatever, and seems to be rapidly taken up into the circulation as a mercuric oxide if not already reduced to infinitesimal globulss of mercury, for it cannot be found as mercuric iodide in the feces, although traces of mercury may be found in the urine a few hours after it has been absorbed. Cypridol is perfectly tolerated and although the dose is usually only five or eight capsules daily, it can be increased without fear of salivation or any untoward effects, to 12 and even 16 capsules daily, which may be continued for months or even years. This is equivalent to from 1-4 to 1-2 a grain of mercuric iodide a day and usually from 20 to 30 days treatment internally, will cause all serious manifestations to disappear.

I prefer, however, the intramuscular injections to the internal treatment and European syphilographers are beginning to use them exclusively, because there is greater certainty of absorption and the results are prompt and always satisfactory.

Cypridol does not do more than any of the other mercurial preparations, but it is free from the objectionable characteristics of most objections, and in my experience, has never given pain or inconvenience to the patient, or caused any abscesses or swelling around the point of injection.

Any attempt to use the mecuric chloride or the double salt of bichloride and bin-iodide in water or normal salt solution, is most painful and produces painfnl nodules which take months to become absorbed, besides producing a shock which incapacitates the patient for work, and such injectious always set up a certain inflammation and gangrene so that the assimilation of the mercury can only be very slow. The same occurs with gray oil, calomel or any of the other soluble or insoluble salts of mercury except the bin-iodized oil or cypridol, for not until after chemical action on the muscular tissue and gradual absorption of the broken down cell tissue has taken place, can the mercury become utilizen and owing to the albuminates of mercury being extremely resistant, this process is slow.

By taking care to use a large needle and introducing this deeply into the gluteal muscles, an injection can be made which is almost painless when cypridol is used and I have a record of a number of cases which cleared up nicely and more quickly than with any other anti-syphilitic treatment. of which the following are examples:

Case 1. (A. C. H.) Macular syphilide. Injection of 10 minims cypridol every three days. No internal medication. All symptoms of eruption, sore mouth and chancre left the patient in 18 days and he has since had no further accident. The case is still under observation.

Case 2. (N. B. A.) Profuse pustular eruption, mucous patches after nine weeks from the initial sore.

Treatment. Six minims of cypridol injection, increased to ten minims, every third day. In three weeks, all symptoms had disappeared.

Chlorate of potash mouth wash was used, but no other treatment.—I. C. Reshower, M. D., New York.

The Anaemia of "Hook-Worm" Disease--Pathology and Treatment.

According to Gould, Ankylostomiasis is a "peculiar anæmia produced by the parasite Ankylostoma Duodenale sucking the blood from the walls of the duodenum." This disease is especially prevalent among "dirt eaters," bricklayers and miners. The diagnosis is confirmed by finding the parasite or its eggs in the stools. Ankylostomiasis is a specific zooparasitic disease caused by "hook-worms."

In connection with Ankylostomiasis the writer has observed that "ground itch" in children is, almost without an exception, always the forerunner of hook-worm disease, and further, that "ground itch" is found only in children who go barefooted during the summer months. The source of infection is through drinking contaminated surface water, or from eating fruits and food which may have been contaminated, or the disease may be transmitted through "ground itch." "Dirt eaters" are, of course, particularly liable to become infected, while persons handling dirt are apt to get the microscopic worms on their hands, after which

PNEUMONIA

PLEURISY AND BRONCHITIS

Under the old modes of treatment the death rate from pneumonia was phenomenally high—too high. Some will die under any treatment, but those who are usng

Antiphlogistine

in treating their pneumonia patients find that many apparently hopeless cases recover.

Most physicians now freely acknowledge that Antiphlogistine is far better than ice-packs, blisters, counter-irritants or poultices of any kind. Through a uniform degree of heat and moisture, long and continuously maintained, aided by a persistent hygroscopic effect, Antiphlogistine tends strongly in the direction of flushing the capillaries. The relief of the pulmonary congestion and the overworked heart is further encouraged by Antiphlogistine's action upon the nerve terminals, resulting in a dilation of the superficial vessels and the contraction of those deeply seated.

Once you have used Antiphlogistine on yourself, your wife or your child, you will ever after appreciate its efficacy.

Follow Directions Carefully

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it is an easy matter to transfer them to the mouth directly with the food. The prevention, therefore, is pure drinking water, careful personal habits, and to never go barefooted. A careful examination of my cases reveals the fact that patients, who have had "ground itch," later on develop ankylostomiasis.

This type of anæmia is accompanied with a variable appetite, nausea, pain in the epigastrium, constipation or diarrhœa, hypertrophy or dilatation of the heart, and, in the acute form, dyspnœa and dropsy. Children, who have suffered from this disease for several years, are stunted in growth and development, it being common to find young people from fifteen to twenty years of age who have the appearance of from eight to twelve years old. Together with the non-development of the individual it will be observed that the growth of the mental faculties is also much retarded. The skin will be found thin, pale, putty-like in appearance and very wrinkled. The mucous membranes are colorless, the body weight is decreased, lower extremities often swollen, and careful observation will reveal puffiness under the eyes, and sometimes perceptible swelling of the face; and, in some cases, occasionally a very pronounced dropsy will be present.

Before discussing the treatment of ankylostomiasis, it might be profitable to glance at the pathology of the blood in this particular type of anæmia. The color of a drop as it emerges from a puncture varies a great deal. In most cases it is very pale, more so than is occasionally seen in severe cases of chlorosis and secondary anæmia, but often the color of the drop, as it emerges from the skin in gross, is not as bright a red as normal blood, even when more than one-fifth of the number of the corpuscles are present. The pale color in such cases is probably due to the low hæmoglobin percentage present in all of these cases. Most cases show from one to two and a half million red corpuscles below the normal when they first come under observation. A great increase of leucocytes is the rule in all cases; frequently in severe cases more than twenty thousand are found in a cubic millimeter of blood. This is the more striking, because in some of the types of anæmia leucocytes are usually greatly diminished in number. In the remission of the disease the leucocytes decrease while the erythrocytes increase and often go above the normal figure.

"Hook-worm" disease produces an anæmia varying in intensity with the number of parasites and the duration of the disease. The greater the number of parasites the longer the duration of the disease, the greater the anæmia, and vice-versa. The anæmia does not simulate a pernicious anæmia, but rather a grave secondary anæmia, as evinced by the predominance of normoblasts; if, indeed, any nucleated red cells at all be present, microcytes, with slight poikilocytosis. After the thymol treatment the iron seems to be readily absorbed, and by its oxygen-carrying properties produces an immediate gain in the number of the red blood cells, with an increase in hæmoglobin, and a fall in the leucocytes. When a case of long duration shows, after specific treatment, no increase in haemoglobin and red cells, the prognosis is grave; it is in contra-distinction good when such rise does appear. In case of short duration a rise in the red cells and the haemoglobin is of good prognostic import.

The medical profession are under obligations to Dr. Stiles for the pioneer work he has done in ankylostomiasis. Before he published his studies on the subject, the disease was regarded as hopelessly incurable, because its etiology was unknown and its pathology unstudied. Now, uncinaria, through the pioneer investigation of Dr. Stiles, has become one of the most easily diagnosed and readily curable affections.

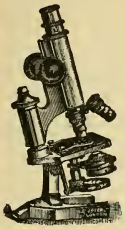
In the treatment of the anaemia of "ankylostomiasis" we have two drugs that will rapidly aid the oxygenation of the blood and tissues, viz.: manganese and iron. Manganese, as an element of the blood, has a more strongly ozonizing action on the oxygen than that displayed by iron, and is therefore more powerfully oxydizing and more actively assimilating. Each of these substances, therefore, in combination medicinally, has its separate and specific effect upon the blood, both being necessary if a prompt hematinic action is expected. Pepto-Mangan (Gude) proves clinically to be exceedingly apt in this valuable property of easily absorbing oxygen, which is readily assimilated, thereby increasing the oxygen-carrying power of the circulating fluid, which conveys this life-giving principle to all organs and tissues of the body. Therefore, that preparation of iron which endows the blood with the property of absorbing the greatest amount of oxygen during its passage through the lungs and allows it to part most easily with this same oxygen when it reaches the ultimate tissues of the body, must prove to be the most valuable therapeutic agent of this element.

As a matter beyond contradiction, manganese, by its oxygen-carrying power in the blood, has an importance which is fully as great in the hematopoietic process as that possessed by iron. Prominent scientists and physiological chemists have so expressed the opinion, and have even asserted that the cause of chlorosis, which often lasts for years, and of other diseases, due to deficiency in the composition of the blood, must be sought for in our lack of means adapted to return to the blood its manganese under an easily absorbable form.

The writer is under many obligations for valuable assistance in blood examinations rendered by his friend and colleague, Dr. H. L. Warwick.

Case I.—My attention was first directed to the anæmia of hook-worm disease in April, 1898, while on a professional visit to an adjoining county. I was asked to prescribe for the son of a planter, whom I was called to treat. This patient was a boy about twenty years old, though he appeared to be only about twelve. He was very anæmic, skin of a pearly, clear hue, mucous membranes colorless, feet and ankles swollen, heart dilated, hæmic murmurs over carotid, eyes swollen, pain in epigastrium, no appearance of beard on face, feminine voice, I ordered ferruginous tonic and did not see patient any more for a year, when he was sent down to me for treatment, with his former condition unimproved. In the meantime I had read a paper on this type of anæmia and was better qualified to make a diagnosis, and with the aid of a microscope the ova were found in great abundance. The blood was also examined, with the following results: Leucocytes, 20,000 per c.mm.; red blood corpuscles, 2,500,000 per c.mm.; hemoglobin, 35 per cent.; diagnosis, ankylostomiasis. While the prognosis was not very bright, yet I took an optimistic view of the case and offered encouragement. Two preparations only are necessary to effect a cure—thymol, and iron and manganese. This patient was starved and purged according to Stiles' and Harris' method of treatment, after which two 30-grain doses of thymol was administered. On the fourth day no ova could be found after repeated examinations. It was at this juncture that he needed the aid of a ferruginous tonic, and I promptly ordered Pepto-Mangan (Gude), tablespoonful after meals t. i. d., and at the end of a month he was so much improved that his former friends would have hardly recognized him. A second examination at this time of the circulating fluid revealed the leucocytes 10,000 per c.mm.; red blood corpuscles 4,600,000 per c.mm., and percentage of hemoglobin to be 78 per cent. The patient was sent home with a supply of Pepto-Mangan (Gude), and his convalescence continued rapidly and has been permanent.

Case II.—Mary, daughter of a tugboat engineer, was brought to my office in October, 1899, suffering



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from "ground itch" of two months' standing, with history of having gone barefooted in the country all summer. This was prescribed for, and in about four weeks the annoying symptoms disappeared. At the beginning of the following summer she was again brought to my office for treatment. On visual examination it was clearly apparent that she had anæmia. She was poorly nourished, tongue dry and coated, teeth and gums covered with sordes, skin pale, putty-colored and extremely wrinkled, mucous membranes bloodless, considerable diarrhœa, stools reddish brown. An interrogatory examination caused me to suspect uncinaria. A microscopic examination of the stools confirmed my suspicion. Blood examination as follows: Leucocytes, 22,000 per cmm.; red corpuscles, 2,300,000 per c.mm.; hæmoglobin, 35 per cent. She was starved and purged and given the thymol treatment, after which

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she was ordered to take Pepto-Mangan (Gude), tablespoonful after meals three times daily. She at once began to improve, and after a sixty-days' course of treatment a second blood examination revealed the following: Leucocytes, *8,500 per c.mm.; red corpuscles, 6,000,000 per c.mm.; hæmoglobin, 80 per cent. She was, to all intents and purposes, entirely well and treatment was discontinued.

Case III.—Willie D., aged 10 years, son of a banker, was brought to me during the summer of 1900 with an aggravated case of ground itch. Upon interrogation it was learned that for the past two summers he had had "ground itch." He was a pale anæmic youth, skin pale, dirty, lemon-yellow; mucous membrane colorless, appetite capricious slight swelling of ankles, pain in epigastaium, diarrhœa of brownish red hue. Diagnosis of hook-worm disease made without microscopic examination. Patient was starved and purged, after which the thymol was administered. Blood examination showed: Leucocytes, 22,000 per c.mm.; red corpuscles, 2,350,000 per c.mm.; hæmoglobin, 45 per cent. Patient was placed on Pepto-Mangan (Gude), tablespoonful after meals. This was continued for seven weeks, when a second examination of the blood revealed the following: Leucocytes, 10,000 per c.mm.; red corpuscles, 4,500,000 per c.mm.; hæmoglobin increased to 80 per cent., and patient's condition improved in every respect and discharged cured. He has not gone barefooted for the past three summers and has no return of the "ground itch."

Case IV.—T. G., aged 22, first seen early in summer of 1901; laborer, worked at guano mill, and often ate his lunch without washing his hands. When called to visit him, found he had been ill for ten days, with some vomiting, nausea, diarrhœa, with reddish brown stools, and pain in the epigastrium. He was anæmic and poorly nourished, tongue dry, coated and unsteady, teeth and gums covered with sordes, temperature normal, pulse accelerated, feet and ankles slightly swollen, some slight dilation of the left side of heart; history of having had "ground itch" in both feet four years previously. Diagnosis, "hook-worm" disease. Patient was starved, purged and given the thymol treatment. Next day the blood was examined by a colleague, with the following results: Hæmoglobin, 35 per cent.; red corpuscles, 3,500,000 per c.mm.; white corpuscles, 20,000 per c.mm.; polymorphonuclear neutrophiles, 20 per cent.; eosinophiles, 70 per cent. The patient was placed upon Pepto-Mangan (Gude), tablespoonful after meals three times daily. Six weeks later the blood was again examined by my colleague, with the following result: Hæmoglobin, 80 per cent.; red cells, 5,600,000 per c.mm.; white cells, 8,000 per c.mm.; polymorphonuclear neutrophiles, 68 per cent.; eosinophiles, 14 per cent. Patient's condition was greatly improved and dismissed.

Case V.—Miss J., school girl, aged 16 years; affected with pronounced chlorosis, from which she had suffered for two or three months, and attended with functional disturbances. There are marked mental anxiety, a disinclination to take interest in her studies, to enjoy life, or take any exercise; there was marked muscular weakness, cardiac palpitation, difficulty in breathing, loss of appetite, headache, vertigo and insomnia. The patient's family history was good. Her menstruations were scanty and irregular; there was marked pallor of the mucous membranes, the lungs were normal, the area of cardiac dullness was enlarged towards the left side, bellows murmur over both jugulars; stools were tinged with blood, which caused me to suspect uncinaria, and examination revealed the ova in quantities. Blood showed: White corpuscles, 15,000 per c.mm.; red corpuscles, 2,000,000 per c.mm.; hæmoglobin estimate, 50 per cent. Patient was starved and purged, and had administered the thymol dose, and was then placed on Pepto-Mangan (Gude), dessertspoonful doses three times daily after meals. She was advised to live as much as possible in the open air, to have a highly nutritious diet, with liberal quantities of port wine with her meals. At the end of four weeks she was much improved, all her former annoying symptoms were past history, she slept well, enjoyed herself, appetite and digestion were now normal, and all her organs were discharging their proper functions in a normal manner. A second examination of the circulating fluid revealed the following: White blood cells were 5,000 per c.mm.; the red cells were increased to 4,800,000 per c.mm.; the hæmoglobin was increased to 85 per cent. From the beginning there was a noticeable improvement in the patient's subjective symptoms, and she was discharged cured, and resumed her school duties.

Case VI.—Mrs. J. C. D., aged 22 years, weighing 100 pounds, was seized with malarial infection more than two years before. Since then there has been no recurrence of the disease. When she came under observation two months ago (January, 1901) she was very pale and anæmic, mucous membranes almost colorless, she was easily fatigued, complained of constant tired feeling, appetite and digestion poor, menses irregular and painful, followed by leucorrhœal discharge. On examination her stools were laden with uncinaria Americana. The blood count showed white cells 14,500, and red cells 2,400,000 per cubic millimeter; hæmoglobin 43 per cent. She was purged and starved, then given thymol, two 30 grain doses; and four days later she was placed on Pepto-Mangan (Gude), in tablespoonful doses, three times daily, with a highly nutritious diet and plenty of outdoor exercise. Six weeks after beginning treatment her weight had increased to 119 pounds and all of the above-mentioned symptoms had disappeared; her menses were regular and without pain. The blood examination revealed the following: white cells about normal in number and other characteristics, the red cells were increased to 4,200,000 cubic millimeter and hæmoglobin had increased to 70 per cent.

Case VII.—Young lady from the country, aged 16. Consulted me during August, 1902; complaining of loss of appetite, headache, pain in epigastrium, swelling of feet and ankles, skin of a pale waxy hue, very anæmic, swelling under eyelids, diarrhœa of a brownish tint; ankylostomiasis suspected. An examination of the stools confirmed my suspicions. The patient was starved and purged and given the thymol treatment. An examination of the blood revealed the following: white blood corpuscles 18,000 per c.mm.; red cells 3,500,000 per c.mm.; hæmoglobin estimated about 40 per cent. Patient was placed on Pepto-Mangan, and after six weeks was greatly improved, sleeping well, appetite good, swelling entirely disappeared, free from headache or pain. A second examination of the blood was made, with the following results: Haemoglobin, 85 per cent,; leucocytes, 8,000 per c.mm.; red cells, 5,300,000 per c.mm. Patient discharged cured.

During the fall of 1903 I was called some twelve miles in the country to visit the family of an overseer of a rice plantation, and was asked to examine his children—a boy of twelve years and a daughter of fourteen. Both were undersized for their ages; pale, waxy, anaemic children, with swelling of lower extremities, capricious appetite; had no other symptoms calling for attention. The parents had noticed for many months that the children were not well nor healthy, but had paid no particular attention to them, thinking that they would soon be all right. Upon closer interrogation both children had, some time before, had "ground itch," and also two years before. My diagnosis was ankylostomiasis.

Case VIII.—Boy, aged 14 years, above mentioned, was purged and starved, then given the regulation prescription of thymol. Three days later, when

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making my second visit, the blood was secured and examined by an associate, who reported as follows: Leucocytes, 16,000 per c.mm.; erythrocytes, 3,000,000 per c.mm., haemoglobin, 37 per cent. He was placed upon Pepto-Mangan (Gude), and after six weeks another examination was made, which revealed the following: Leucocytes, 8,000 per c.mm.; erythrocytes, 5,500,000 per c.mm; haemoglobin, 87 per cent. Dismissed cured.

Case IX.—Sister of No. VIII, aged 12 years, was starved and purged, then given the usual thymol prescription; three days later the blood was examined by an associate, who reported as follows: Leucocytes, 15,000 per c.mm.; erythrocytes, 3,800,000 per c.mm.; haemoglobin, 31 per cent. She was placed on Pepto-Mangan (Gude), and after six weeks the circulating fluid was subjected to a second examination, which revealed the following: Leucocytes, 9,000 per c.mm.; erythrocytes, 5,400,000 per c.mm.; haemoglobin, 85 per cent. Both children were very much improved, good appetites, swelling of ankles had entirely disappeared, the former waxy anaemic physiogomy had given place to a ruddy complexion. Both children were dismissed cured.

Cases X to XVI.—Soon after the above cases were dismissed, I was called to North Carolina to see a case in consultation, where I was detained for two weeks, and, soon after my arrival, I was asked to see a six-year-old child of a tenant on the plantation; the urgent symptoms being insomnia, could sleep only while sitting up in a rocker. The child was a little stunted, sallow waif, with wax-like face, presenting a dropsical appearance; lower extremities very much swollen, complainod of severe headache and pain in the stomach, no appetite, stools of a brownish red, in which were visible the mature uncinaria Americana, small white-like string about the size of a number 10 sewing thread and three-quarters of an inch long. The child was starved and purged, and given the regulation dose of thymol, which brought away quantities of the mature hookworm. The second night thereafter the child was able to lie down and sleep in the recumbent position. A microscopic examination of the blood was not made, no instrument being accessible. However, she was placed on Pepto-Mangan (Gude), and soon began to improve. There were four other children in this family, together with the parents, all of whom were suffering from hook-worm disease. The neighbors accused the whole "bunch" of being "dirt eaters." A careful interrogatory elicited the fact that during the summer both parents and children went barefooted, and at one time or another every member of the family had been affected with "ground itch," some of the children repeatedly summer after summer. The whole family was starved and purged, and given the regulation dose of thymol and then placed on Pepto-Mangan (Gude), and almost immediately began to improve. The treatment was continued after my return home, and two months later reported as having gotten well.

In 1893, I was one of the staff of four physicians serving in rotation of three months each at Bethesda Orphanage for Boys. (This orphanage was established in 1740 by Rev. George Whitfield.) I was in attendance during the months of July, August and September. During the latter part of this service Dr. L. M. Warfield requested my cooperation in examining the boys for "hook-worm" disease. The doctor very kindly made careful microscopic examinations of the stools of the inmates of this institution and reported to me by letter, giving the names of 82 boys affected with ankylostomiasis: the number of boys cared for at this time were 124, therefore about 66 per cent. were suffering from hook-worm disease. The boys who went barefooted during the summer, all had ground itch and were found to be infected with uncinaria Americana. The boys in whom the examination failed to revail the hook-worm or its ova were those who, almost without exception, had never gone barefooted.

The superintendent was given prescriptions for thymol and Pepto-Mangan (Gude), and was directed to starve and purge the boys affected, and then administer the thymol, after which they were to be given the Pepto-Mangan (Gude). My term of service had ended before the treatment was more than commenced; the superintendent reported improvement in the boys. These cases are not reported in detail, because no blood examinations were made and because they are so nearly alike, resembling one another in most of their characteristics, and as the treatment was the same, it would be useless repetition to cite them in detail.

Another observation which I have made is that "ground itch" and ankylostomiasis go hand in hand as it were. In almost all of the cases I have seen, a history of ground itch precedes the symptoms of uncinaria Americana. My clinical experience has conclusively proven that by the administration of thymol and Pepto-Mangan (Gude), the anaemia of hook-worm disease is controlled and results in positive cure.

From a close study of this subject, and a critical review of the literature pertaining thereto, and my own experience, I am of the opinion that this is a very widespread disease, and one that as yet is only beginning to be recognized by the profession. Hook-worm disease is among us; it is a grievous burden to its host, and if not recognized and treated properly, it causes mental underlings, physical dwarfs, and ultimate death.—William Edwards Fitch, M.D., in Southern Medical Journal.

* The anæmia of Hook-worm Disease is a peculiar anæmia, and in severe cases the blood count will show erythrocytes on first examination much below that of ordinary anæmia, while on the second examination, after treatment is well advanced, the erythrocytes will go greatly above the normal figure.

Treatment of Genito-Urinary Troubles.

Cystitis being the most frequent of the chronic inflammations of the urinary tract, we may take it as an example for consideration. My experience with hundreds of these cases taught me to always examine the urine closely. From a therapeutic standpoint, we are not interested so much as to just where the irritation is located as we are in what will cure the patient. In these cases I have prescribed cystogen, which has a direct action upon the mucous membrane of the genito-urinary tract. Formaldehyde is liberated in the urine, and the whole tract, from the glomerulus of the kidney to the meatus, is bathed with a solution of formaldehyde, thus preventing the formation of pus, allaying irritation and overcoming decomposition. Cystogen aperient was prescribed in many cases. This is an effervescent salt of cystogen, containing phosphate of soda, and its administration was followed by marked improvement in all cases. Cystogen aperient should be prescribed when a laxative is desired in connection with the therapeutic effect of the drug.—Brose S. Horn, M. D.

LaGrippe and Its Sequelae Again Prevalent.

The following suggestions for the treatment of LaGrippe will not be amiss at this time when there seems to be a prevalence of it and its allied complaints. The patient is usually seen when the fever is present, as the chill, which occasionally ushers in the disease, has generally passed away. First of all, the bowels should be opened freely by some saline draught. For the severe headache, pain and general soreness give an antikamnia tablet, with a little whiskey and wine, or if the pain is very severe, two tablets should be given. Repeat every two or three hours as required. Often a single dose is followed with almost complete relief. If, after the fever has subsided, the pain, muscular soreness and nervo

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ness continue, the most desirable medicine to relieve these and to meet the indication for a tonic, are antikamnia and quinine tablets. One tablet three or four times a day, will usually answer every purpose until health is restored. Dr. C. A. Bryce, Editor of "The Southern Clinic" has found much benefit to result from antikamnia and salol tablets in the stages of pyrexia and muscular painfulness, and antikamnia and codeine tablets are suggested for the relief of all neuroses of the larynx, bronchial as well as the deep-seated coughs, which are so often among the most prominent symptoms. In fact, for the troublesome coughs which so frequently follow or hang on after an attack of influenza, and as a winter remedy in the troublesome conditions of the respiratory tract, there is no better relief than one or two antikamnia and codeine tablets slowly dissolved upon the tongue, swallowing the saliva.

Tuberculosis of the Female Urinary Organs--Removal of Kidneys and Ureter.

Dr. Ernst W. Cushing, of Tuft's University, Boston, read this paper before the Maritime Medical Society of Halifax, N. S. He reviewed the steps by which the diagnosis of tubercular lesions of the kidneys and bladder had advanced from uncertainty to positive knowledge. Clinical experience and the results of surgical operations confirmed the findings of pathologists, that tuberculosis of the bladder was rare except when the kidneys are first affected, and the fact that after removal of the diseased kidneys the tuberculous bladder was usually curable. He reported a case which was interesting from the fact that there never had been any symptoms referable to the kidneys. The case was that of a woman aged thirty, coming under observation in 1892. In 1900 she underwent an operation for dilatation and curettment of the uterus. During the next two years she gradually failed in health, suffering from pains in the back, low down, and frequent desire to micturate. Examination of urine showed cystitis, which was supposed to be referable to pressure from the retroverted uterus. In February, 1902, the uterus and appendages were removed. On March 2d the bladder was somewhat better, urine clear and alkaline, S. P. 1010, contained albumin, pus and cocci. Bladder was washed with a dilute permanganate solution, and cystogen was given internally. The patient went home in good condition on April 1st. On April 11th she returned, and examination showed the bladder had become nearly as bad as at first, patient having neglected treatment. Irrigations were again instituted and cystogen given t. i. d., following which there was much improvement.

A Substitutor Convicted.

Kress & Owen vs. Cruttenden.—On the 8th day of December, Police Magistrate Denison, in the police court, registered a conviction against Thos. Cruttenden, Jr., who keeps two drug stores in Toronto, one at the corner of Howard and Sherbourne Streets, and the other at the corner of Gerrard and Sumach Streets, for infringement of the trade mark, duly registered in Canada, owned by Kress & Owen Co., 210 Fulton Street, New York, "Glyco-Thymoline." The evidence conclusively showed that the defendant had put up a preparation under the name of "Glyco-Thymol," and with labels worded verbatim et literatim to those of the original manufacturers. The magistrate, in registering the conviction, gave the defendant's solicitor, who hinted at an appeal, to understand that if he entertained that idea he would not only fine but imprison his client as the law provided. The case was adjourned for a week, at the end of which time Cruttenden, through

his solicitor, gave an undertaking that he would stop all manufacture of Glyco-Thymol and destroy all labels, bottles, etc., connected with the sale of that preparation. The firm of Kress & Owen Co., are deserving of congratulation over the result of this case. They had every reason for prosecuting Cruttenden, as it was nothing short of dishonest and entirely contrary to the law, that he should stoop to such practices and try to rob a firm who by strictly ethical advertising (solely to the profession) and the expenditure of about $175,000 per annum, have secured a large sale of Glyco-Thymoline, a preparation found valuable in catarrhal conditions of the mucous membrane.—Canadian Journal of Medicine and Surgery Editorial, January, 1905.

Acute Asthma.—An Expression of the Gouty Diathesis.

Erstwhile pathfinders in the wilderness of medicine discovered the ultimate connection between gout and an excess of uric acid in the blood, since which time others have been trying to find out how it is formed and accumulated there.

It is now universally acknowledged that uric acid is due to defective metabolism, the dissimilation of albuminoids giving rise to uric acid, through the intermediate stages of nuclein and xanthine (Kossel), which if the emunctories are in perfect condition, was readily eliminated from the body without deleterious effects; if, however, the liver and kidneys do not act normally, it is easy to understand how the blood becomes surcharged with these effete substances.

Dr. A. L. Benedict, in the Medical Fortnightly, says: "There are found in muscles and glands, especially after active function, many products of oxidation of nitrogenous tissues which are not found in the urine, bile, perspiration or other excretions. Most of these are converted by the liver into urea, a small quantity, into uric acid and other nitrogenous waste, traces of which are found in the urine and bile. Lencin and tyrosin are also changed into urea. Most of these products of nitrogenous synthesis are excreted by the kidneys, so that the liver acts in this respect as a ductless gland. Small amounts escape in the bile. A failure of the liver to perform its function fully results in gout and rheumatism, known in its milder forms as lithæmia. Nuclein activity or the ingestion of foods especially rich in nuclein, such as thymus gland, cheese, etc., increases the amount of uric acid in the system, and tends to overcome the power of the liver in changing nitrogenous waste into urea."

My studies of the uric acid diathasis have led me to the conclusion that certain obscure hepatic derangements are most frequently the cause of this acid irritation, and these views are borne out and substantiated both pathologically post mortem, and clinically by anti-uric acid treatment.

In a previous brochure entitled "Hepatic Gout," I have pointed out that certain eruptions on the skin, stimulating urticaria have been attributed to uric acid, and consequently mucous membranes could be likewise affected, as gout in the liver and gout in the toe are only differences of place, not process.

So, likewise, uricacidæmia, when locally manifested in the mucuous membrane of the air passages, causes a lithæmic condition known as acute asthma, which is a veritable gout of the respiratory mucous membranes, and is amenable to treatment without changing climate, and in most instances without special local interference, save where there is such a superficial tissue destruction that breathing is interfered with by reflex stimulation of the muscles of the ultimate bronchi.

In many cases the irritation causes local swelling of the tissues of the larynx. This swelling, in most instances, is merely dropsical effusion, in others, by reason of frequent repetition of the attacks, a hyperplasia of the connective tissue underlying the mucyosa. The mucous membrane, as seen by the laryngoscope, is usually red; due to hyperaema, and it is exquisitely sensitive to the touch, even to the point of being painful. Microscopically, we find in frequently recurring cases which tend to become chronic connective tissue cell proliferation, an infiltration of red and white blood corpuscles, and a condition of cloudy swelling bordering on fatty degeneration. This pathological lesion is not constant, and, of course, we must look further for the primary physiologic change, which precedes the change of structure which we term a lesion.

All pathological Processes are preceded by these changes in function, which in their earliest manifestations are known as symptoms. Uric acid, acting as an irritant upon both the nerve centers and sensitive nerve terminals, causes the first physiologic change in the mucous membrane lining the air passages, viz.: An hyperæmia, a veritable vaso-motor reflex.

After this an exciting cause without, such as a foreign body in the form of pollen, cold air, hot air, odors, etc., may exaggerate the stimulus given by the essentially reflex irritation, and we get as a natural sequence hypersecretion, the concomitant symptoms of an acute asthma, easily treated, but often most severe in its manifestations.

Professor Haig claims that perspiration causes a diminution in the acidity of the urine, due to the elimination of the acid in the sweat. If the acidity of the urine is diminished then the alkalinity of the blood must necessarily be increased, which allows it to hold more nitrogenous bodies in solution, so that the greater the percentage urates in the blood, the greater the stimulus to the nerve centers, and the more pronounced the neural phenomena of the uric acid diathasis.

During the fall weather sweating followed by chills, in frequent, so that gouty patients are more susceptible at this season of the year, however, there is no fixed law as to the time of occurrence, for many cases have been known to occur in mid-summer as the result of exposure.

The symptoms of this disease are diverse, according to the intensity and localization of the processes It ranges all the way from the Schneiderian membrane to the mucosa lining the bronchioles. Even attacks of angina pectoris have been traced to the causative action of uric acid, when present in the blood in excess of the normal.

An attack of gout affecting the upper air passages is usually made manifest to the sufferer by an itching of the hard palate and fauces, which generally extends to the nostrils, eyes and face. This is quickly followed by violent fits of sneezing, and thin watery discharge. There is also profuse lacrimation with occasional pains in the head, particularly in the region of the frontal sinuses. Oedema of the mucous membrane rapidly follows, so that soon both nostrils are entirely excluded, and respiration has to be carried on solely through the mouth, which causes a dry parched condition of the already irritated mucous membrane of the hard palate and fauces. The discharge gradualy becomes less in quantity, but thicker and more viscid, the eyes become red, and swollen, and the lachrymal ducts finally closed, due to pressure from the engorged submucous tissue.

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There may also be swelling of the mucous membrane in the pharynx, which partly closes the Eustachian tubes by pressure, causing temporary deafness. There is slight fever, ranging as high as 100 F., but never pyrexia, and the pulse quickens a little. When the process extends to the bronchii, asthmatic symptoms appear and we get wheezing, prolonged expiration, and a little dry cough, which finally resolves with expectoration. The catarrhal symptoms are, of course, far less characteristic of the disease than are the asthmatic, still they do exist in certain cases, and can as readily be traced to a uric acid irritation as the other, and yield just as gracefully to the antiuricacid treatment.

The treatment of this affection is palliative and curative, For the palliative treatment many remedies have been tried, for my part I prefer an antiseptic spray, containing 4 per cent. of cocaine. In this way the parts are kept clean, the hyperæmia and edema reduced, with the concomitant hypersecretion of mucous, and a local anesthesia established.

When I first began to treat cases of acute autumnal asthma on the uric acid theory basis, I used the different alkaline salts with varying results, but I obtained my best results from salicylate of soda and colchium. Why these drugs acted more favorably than the others was to me a sort of "post hoc propter hoc," but after making a thorough study of their physiologic action, I think I can safely say it is because they are the best elimina ors of uric acid.

Some months ago my attention was called to a new granular non-effervescing double salt of sodium and lithium, as an excellent preparation to use in preparing patients for operation on account of its specific action ou the liver, and having found its eliminative features most excellent in this direction I began to use it for all lithemic conditions including asthma. Since then I have discarded my older methods as the gratifying results I obtained warranted my so doing.

This double salt of sodium and lithium is known under the trade name of Sulpho-Lythin, and is an alkaline salt formed by the action of phosphoric and sulphurous acids on sodium and lithium. It is not freely soluble in cold water, but dissolves readily in warm or hot water and is not disagreeable to take as it has no unpleasant taste.

Its physiologic action is of broad scope; it is diuretic, diaphoretic, antiseptic and anti-fermentative in the intestinal tract, toxin-eliminant, increases the flow of fresh bile, by stimulating the secretion of the hepatic cells, reduces hyperemia by facilitating the resolution of the products of inflammation, and above all is a uric acid solvent and rids in the elimination of urea, uric acid add other solid constituents of the urine in excess.

Sulpho-Lythin is absorbed and passes into the circulation, where it exerts an antifermentative and anti-toxic action, restoring and preserving the normal alkalinity of the blood.—J. Leffingwell Hatch, B. S. C., M. D., F. R. M. S., Late Professor of Laryngology in the New York Clinical School of Medicine and Laryngologist to the German West Side Dispensary; formerly Assistant Demonstrator of Morbid Anatomy and Lecturer on Bacteriology in the University of Pennsylvania; Pathologist to the Philadelphia Hospital; late Sanitary Inspector for the Port of Antwerp, Belgium, in the U. S. Marine Hospital Service, etc.

The Tri-State Medical Association of the Carolinas and Virginia.

This Medical Association will meet in Benbow Hotel at Greensboro N. C., February 28-March 1, 1905. The subject for General Discussion will be "Gall-Stones, Diagnosis, and How to Deal with Them Medically and Surgically. The leaders of the discussion will be Drs. Geo. Ben. Johnson, Richmond, Va.; H. A. Royster, Raleigh, N. C., and Manning Simons, Charleston, S. C. The following papers have been promised: Drs. J. E. Stokes, Salisbury, N, C; S. M. Crowell, Charlotte, N. C.; G. E. Chinn, Norfolk, Va.; Julian M. Robinson, Danville, Va.; Wm. Eggleston, Hartsville, S. C.; J. W. Jervey, Greenville, S. C.; W. L. Robinson, Danville, Va; J. W. Long, Greensboro, N. C.; Edward McGuire, Richmond, Va.; R. W. Martin, Lynchburg, Va.; J. S. Irvin, Danville, Va.; H. A. Royster, Raleigh, N. C.; C. A. Julian, Thomasville, N. C.; J. T. J. Battle, Greensboro, N. C.; J. M. Baker, Tarboro, N. C.; Stuart McGuire, Richmond, Va.; Southgate Leigh, Norfolk, Va; R. C. Bryan, Richmond, Va.; Isadore Schoyer, Laurens, S. C., and J. Shelton Horsley, Richmond, Va.

The Committee of Arrangements—consisting of Drs. J. W. Long, chairman, J. T. J. Battle, J. A. Turner, J. E. Brooks and C. S. Gilmer.

A Case of Pneumonia Following Severe Typhoid--Recovery.

J. B. W., white, male, age 30 years. Was recovering from a severe case of typhoid. On the 36th day his temperature was normal. On the 39th day it again began to rise and in a few days had reached 104.5; the pulse 140. A severe cough and consolidation of the right lung told the story of a complicating pneumonia. After the long and severe drain upon his resources incident to the typhoid his condition presented a very alarming, not say, desperate situation.

Counsel was called and it was decided that his only hope lay in the generous use of Antiphlogistine. A "large" package was secured and heated by placing the sealed can in hot water. The temperature of the room was brought up to about 80 deg. A cotton-lined cheesecloth jacket, open upon the shoulders and in front was prepared and warmed. Uncovering the patient's thorax, Antiphlogistine as hot as could be borne was spread upon the skin about 1-8 inch thick over as much of the thoracic walls as could be reached (back, front, side and over the shoulder). This was covered with the jacket. Turning the patient over, the other side was dressed in the same way. The jacket was then drawn together over the shoulders and down the front with stout thread. It is proper to say the entire contents of the 34 1-2 oz. package (large) was used for the one dressing.

The effect was surprisingly prompt In a few hours, the temperature had declined to a point of safety and the pulse to 130. A similar dressing was applied fresh every 24 hours. The improvement was steady and marked and in six days the patient was again convalescent, thanks to Antiphlogistine

The brilliant outcome in this case taught me the importance of careful attention to detail in the use of Antiphlogistine. Like everything else worth while it must be properly used if the best results are to be obtained.

The Charlotte Medical Journal.

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Therapeutic Uses of the X-ray. *

By P. St. L. Moncure, M. D., Norfolk, Va.

Within the past ten years electricity has again pushed itself to the front, this time in new forms, and for different purposes—and has come to stay. Its progress of development has been so rapid and marked as to have almost if not quite made for itself a special place in medical science. But I will confine myself to the therapeutic uses of the X-ray alone—not attempting to discuss Fensin light Becquerel rays (or radium), high frequency currents, or any of the other forms of electricity in the treatment of disease. Each has its advocates. The history of the discovery, and progressive steps by which the X-ray has reached its present diagnostic and therapeutic value I will presume you are familiar with, and will simply endeavor to give you the present status of radiotherapy, and some of my personal observations including a report of a few cases. X-rays possess chemical, fluorescent, and electric properties. Their effects run all the way from slight stimulation to death and destruction of tissue. Many claim that the ray is a powerful stimulant to all tissue, both normal and pathological. Diseased tissue, not having the same resisting power as healthy tissue, is destroyed by the ray at the same time the healthy is stimulated. If the tissues treated be not strong, or if the intensity, distance of the tube, or duration of the raying, be beyond the resistance of the tissues, over-stimulation—then destruction will follow. Most diseases require some special method suitable to that particular trouble; but there are certain precautions applicable to all cases where the X-ray is used. It is a good plan to make the patient thoroughly acquainted with the possibilities of burns, and failures, and let him, or repuire him, to take all responsibility. No electrician, however well he may understand the theory and working of the machine, should be considered a therapeutist; it requires medical and clinical training and knowledge as well. Of course a practical electrician, if he is a good diagnostician and therapeutist besides, will necessarily get the best results. Allen says: "Only a practitioner qualified by experience can properly estimate the dosage, and possesses knowledge to treat deep-seated lesions and the patient coincidently." And to quote from Boggs: "There is no specialty that requires more careful and hard study than radiotherapy." The therapeutic uses of the X-ray to-day far exceed the diagnostic uses, and a correct technique is believed by all to be of the first importance in securing a satisfactory result.

Rays from different vacuum tubes have a very different effect on tissue: those from the low or soft tube are the more active and have a more or less destructive effect on tissue, while those of the high or hard tube are thought to be more stimulating. I read a paper before the Norfolk Medical Society, last February, on the X-ray treatment of cancers, in which I advocated the use of a high vacuum tube in all therapeutic work; the science has advanced since then, and I have come to the conclusion with many others that a moderately soft or low tube for superficial cases—epitheliomata, lupus and the like—is by far the best. I have personally failed absolutely to get results in cases of epithelioma and lupus from a high vacuum tube, one of these cases has since returned and is now responding very nicely to treatment with a low tube.

Diseases which are benefitted by the X-ray may be conveniently divided into four classes: (1) Those which respond readily as a rule and do not need any other treatment as acne, eczema, lupus and epithelioma, especially of the face. (2) Those which should be treated in conjunction with surgery. Ray for a short time before, then operate, then ray again to prevent recurrence. Under this head may be mentioned most of the operable forms of carcinoma. (3) In cases of inoperable cancer, the X-ray may be employed to prolong life and relieve pain. (4) Tuberculosis: The initial stage of this dread disease often responds to X-ray treatment, but the ray should be only considered as an adjunct to the other measures.

In the treatment of lupus, chronic eczema, epithelioma, the X-ray is the most successful treatment known; it will not, however, cure all; and high-frequency currents and Fensin light are recommended by some to be used as an adjunct. In such cases as carcinoma of the breast, it has been recommended by several authorities to use the ray first, for awhile until the axillary glands disappear, then amputate and ray again. In these cases the operation consists only in removal of the breast, and there is considerable logic in the method; an extensive operation—calling for removal of certainly the great pectoral muscle, and dissecting well into the neck and axilla for glands, is a risk to the patient, (1) in the time consumed in

* Read before the recent meeting of the Seaboard Medical Society, at Washington, N. C.

the operation; (2) impairment of function of the corresponding arm on account of the loss of the pectoralis major muscle, and the possible wounding of one or more of the branches of the brachial plexus; (3) there is also more danger of wounding a blood-vessel. In old cases of inoperable carcinoma the X-ray offers them their only hope, and very little of that, it is true, but it relieves pain and prolongs life and I believe we should give them the benefit of this chance. We do not know what the ray will *not* do. One of the most encouraging cases I have under my care today is one in which I could give him absolutely no hope of recovery when he came to me for treatment; yet this patient has been so much benefited as to be able to work almost every day for the past three months, is entirely free from pain, and I now have hopes of his ultimate recovery. But I should say right here that this was an epithelioma of the rhodent ulcer type, the kind in which X-ray has scored its greatest success.

Tuberculosis.—Though it is now pretty generally conceded that the X-ray has no germicidal effect on pure cultures of tubercle bacillus; yet in cases of inoculation tuberculosis, in lower animals, the results have been very gratifying. Animals so inoculated recovered entirely under x-radiation, while those inoculated and kept under the same conditions except the exposure to X-ray, died. The action of X-rays upon the development of tubercle bacilli in living tissue is probably due to their stimulative influence upon the tissue cells thereby enabling them to destroy and get rid of the bacilli. It is well demonstrated that in many tubercular granulations there is a marked degeneration of the neoplastic cells and a stimulation of normal tissue. Several hundred cases of lupus vulgaris are now on record as having been cured and sufficient time has elapsed to prove the permanency of the result. X-radiation, therefore, might be considered the best treatment for this form of tuberculosis, though Fensin ray still has its advocates and some cases that will not respond to one will be benefited or cured by the other. Personally, I have only treated two cases of lupus—one responded rapidly, and is now apparently entirely well, the other was a failure—though I must say, in justice to the treatment of this case, it was done under rather unfavorable circumstances, with a tube unsuited for such a superficial lesion. The patient became disheartened and discontinued the treatment after thirteen exposures.

In tubercular glands the reports are encouraging enough to justify us in exposing them to the X-ray when a good cosmetic effect is important, as in tubercular glands of the neck in girls. It is claimed by one authority that the X-ray offers the best field of bright possibilities in cases of tubercular joints than in any other affection; that it will not only diagnosticate the trouble in its earliest stages, showing us the smallest tubercular focus or secondary process complicated by abscess, necrosis or caries, but will in a large degree remedy all these troubles, building up and greatly improving the muscular system about the joint. But the same author recommends as an adjunct to the X-ray, immobilization with proper supports and injection into the joint of iodoform emulsion, formalin and glycerine, when the synovial membrane only is affected; under such circumstances, he says, we may expect a cure in six weeks. I have had no experience in treatment of tubercular joints. Up to the present time the X-ray has been used in the treatment of more cases of epitheliomata than any other disease, and with greater success. Ninety per cent of my successful cases have been in this one disease. So far I have not had a failure in any superficial case. Some are under observation and the growth may yet return, however. I believe that every case of epithelioma, especially about the face, should be subjected to the ray first and not make a disfiguring scar by the knife unless radiation fails. I have seen these growths dry up and drop off in from eight to twelve exposures. The eating or ulcerating variety of epitheliomata—rodent ulcers—respond most readily to the action of the X-ray. The most marked improvement I have gotten in any case was in one of this type which I will here report in full. Mr. B., aged 50, came to me from N. C., January 23, 1904, with the following history: Family history negative, previous health good; 13 years ago a small black pimple came on the forehead, over left eye and grew slowly, involving the side of the nose and gradually the left eye. He fell into the hands of the so-called cancer doctors with the usual results. I found, when he presented himself to me, not only the left eye destroyed but a horribly infected running, foul smelling ulcer reaching from midway of his nose up in his hair nearly to the top of his head and from the malar process over to the inner canthus of the right eye in which there was already a slightly purulent conjunctivitis. The outer table of the frontal bone nearly across had been eaten away—with arsenious acid paste I suppose—both frontal sinuses were wide open. Patient had gotten in the habit of taking morphine every night for the relief of pain and to enable him to sleep. I could not promise him anything but a vigorous treatment, and made him take all risks and chances of no results. I dared not take a

photograph of him, it was such a horrible looking place. I sent him to the hospital immediately, had the ulcer dressed twice daily, cleansing with peroxid of hydrogen and a wet dressing of permanganate of potash solution applied. It was exposed once daily for ten or twelve minutes to X-rays, this was kept up thirteen days when a dermatitis was beginning to show itself; the secretions had stopped in a measure but the patient was beginning to show some systemic effects of the X-ray, he lost his appetite, his tongue became coated, and he suffered pains in back and limbs; he began also to run a temperature, his whole scalp was very tender. He begged to return home, which I allowed him to do. I heard from him in two weeks saying he had been ill ever since he left, that his head had swollen very much, his hair was all falling out, and he was suffering with something like erysipelas in his head, he seemed to be disgusted with the treatment. I replied to his letter advising him to wait and have his family physician do what he could to relieve him. I heard from him again in about three or four weeks saying that the ulcer was looking and feeling so much better that he was coming at once for further treatment. When he returned I was surprised to see how much the ulcer had improved. It was not only looking clean with healthy granulations, having stopped its encroachments on the other eye, but was rapidly filling in from every side. I resumed the exposures for ten days and gave him a rest for ten days, when he returned to the hospital, and submitted to an operation for removal of the eye ball which was very painful to the touch. I also at the same time got some skin from his arm and transplanted it on the ulcer which was granulating nicely, half or more of the grafts took, and I gave him another rest of two weeks; in fact, I never have exposed but slightly, the part where the skin took. The flesh surrounding the ulcer filled in so rapidly that I have since concluded that it would have entirely filled in the space without the grafts. I have his photograph as the ulcer now appears and regret now that I did not have him photographed at first for the sake of comparison. He now works every day, goes hunting and has good use of his eye and suffers no pain. He still reports to me about once a month. The inferior orbital foramen is still discharging pus which I conclude is due to some secondary infection. It is possible, however, that there is extension of the ulcer into the mucous membrane of the nose and antrum, but from what progress he has already made I have strong hopes of his ultimate recovery.

One thing else I wish to report with regard to this case and that is its effect on the hair. We all know it will certainly cause it to speedily drop out, but in this instance the hair was protected by heavy sheet lead except a margin of a half inch or so around the ulcer, but when he returned, not only had the hair in front dropped out, but on the back of his head as well, this I attributed to the fact—as is claimed by many—that the rays exert their influence at the entrance and exit from the body, these rays then penetrated the brain and removed the hair on the back of his head as well as in front and yet I did not use a very high vacuum tube. His hair has since grown back again.

The hard horny carcinomato, especially if they extend down to and involve the bone are very stubborn, and in two of my cases I was forced to abandon treatment; the radiation undoubtedly relieved pain, and stayed, at least for awhile, the rapid progress of the growth in these cases; however, they both subsequently died. Both of these cases were on the side of the face, one being just anterior to the ear, it also extended into the middle ear. In the other, secondary infection had gotten into the inferior maxillary bone and the rays in this case seemed to even hasten necrosis. After a good many exposures, the tumor having reduced to less than one-fourth its original size, I removed the inferior maxilla on this side found it very much necrosed, the ulcer improved rapidly, got clean and dry and painless, yet the hard horny tissue remained and after about six weeks I found that he was beginning to have pain and swelling in the superior maxilla and the induration was extending along the lower lip. I suggested a rest for him and he gladly consented and went home. I have not seen him since but believe that he subsequently died. I regret in this case not ligating the external carotid artery, with the idea of starving the tumor, and combining two methods of dealing with this horrible disease. In the other case I *did* ligate the common carotid and the ulcer seemed to clean up and show signs of improvement at once, but the patient very soon developed cancer of the lung, or rather it broke down in his lung, from which he soon died.

Sarcoma.—The weight of authority today seems to indicate that, while the X-ray will cause some large sarcomatous growths to disappear, and prohibit the growth of the majority of them, and while it will relieve pain and otherwise benefit the patient systemically, yet it has so far shown little power to prevent recurrence. Still the X-ray offers these poor patients about their only hope, the hope from operative measures being gloomy in the extreme. Some cures have been reported by Pusey, Coley,

and others, and many other cases have been reported as improved and life prolonged; but the reports of these cases are too recent to be sure that they will not return, and the tendency so far in all cases of sarcoma has been to return. I have only one case to report, a recurrent sarcoma of the breast. She improved very much for a while, yet that poor woman to-day is doomed. Inasmuch as several points in the cause and treatment of the disease can be brought out I will report it here in full: Miss F., aged about 45, was referred to me March 28, 1904, by Dr. Payne. About six or seven years ago she had discovered a hard growth in her left breast which grew rapidly and began to give her pain. She consulted a so-called cancer doctor who applied some salve which almost ran her mad with pain, sloughing out a great hole. It did not entirely heal and began to grow again rapidly. This time she consulted Dr. Payne, who advised amputation of the breast immediately. A Halstead operation was done, 1900. She made a smooth recovery, but in less than two years a nodule returned, which was again removed only to return the third time, and when she consulted Dr. Payne he referred her to me for x-radiation preparatory to removal of some hard glands in the neck and other breast. I gave her exposures every second day of ten minutes duration, which relieved pain almost at once and apparently stayed the progress of the disease. There was a hard dry scaly nodule in the cicatrix of the original wound which soon contracted and finally dropped off. The whole side of the breast was hard swollen and painful, the pains radiating down the corresponding arm. Some few glands on that side of the neck were enlarged, though most of them had been removed. After nine exposures the enlarged glands mentioned above were removed by Dr. Payne. There was at the time a slight reddening of the skin on the side of the chest and by the time the stitches were removed about the eighth day, had developed into a decided dermatitis, weeping and intense itching, the heavy dressing excluding the air seemed to irritate it. This, indeed, resulted in a burn of the second degree. There were several large blisters and some ulceration of the true skin. It finally healed after seven weeks and the exposures were resumed, three times a week as before, but this time with a tube of higher vacuum. The original seat of the growth had improved, the surrounding hardness had largely diminished and she was free from pain, thirty exposures were given in all, but upon close examination I found that the part of the chest and neck protected by sheet lead was involved becoming thickened and hard and peppered with small nodules. She went to the country for a rest and has never returned to me for further radiation. She is still living, but the disease is slowly progressing. During the first part of the treatment of this case I used as adjuncts to the X-ray quinine sulp. given in about six grain doses about an hour before exposure, for the purpose of producing a sort of artificial fluorescence, and as the pains similated those of rheumatism so closely, I gave her salicylate of soda which apparently aided the X-ray in relieving the pain at once. Now the life of this patient was certainly prolonged and the growth and symptoms very much improved. I had strong hopes at one time of curing her, yet here is the final outcome, whereas I had only a small area at first to contend with, now I have the whole chest and part of the neck; and while the original focus seems to be well nigh cured, yet we find fresh nodules by the dozen, in the surrounding tissue, and it would be impossible to reach them all. Coley advises X-ray treatment as an adjunct to injection of the mixed toxins, in these cases, but his report of cases on the subject is not very encouraging.

Skin Diseases.—X-rays have been used in nearly every one of the skin diseases. It was only a natural conclusion that an agent with so powerful action on the hair, and skin in general, should be useful in the treatment of skin diseases in particular. Many diseases of the skin may be treated successfully by X-ray, which will also respond to simpler and better known remedies. In the treatment of all skin diseases we should use a low vacuum tube placed about six or eight inches from the surface and usually expose from six to ten minutes. Though the length of time of the exposure, as well as the frequency, depends on many circumstances, which I haven't time in this paper to take up.

It is used successfully as an adjunt in the treatment of indolent and long standing cases of acne. It acts well in softening and smoothing down hard cicatricial tissue and scars from smallpox, burns, etc. It is highly recommended in the treatment of eczema, combined with other measures. I have not had a great deal of experience with it in eczema and in one of my cases it did not respond as I had hoped, though in this case I did not use any other treatment. Short exposures are recommended in the treatment of eczema.

Lupus.—I have had one very gratifying recovery in a case of lupus vulgaris, which has shown no tendency to return after three months cessation. I have also one failure to report, after twelve or fourteen exposures and a burn of the second degree, the

patient desired to rest awhile, and has not returned. I am in hopes she will return, when I expect to use a low vacuum tube, for I used a high one when she was under my treatment last. It is claimed by authorities that lupus requires more skill in the X-ray treatment of it, than any of the skin diseases, and it is often necessary to combine other measures in order to effect a cure, such as curetting, cauterization and the application of ointments. It is also a hard disease to diagnose.

Lupus Erythematosis, is a disease more common in America, and is said to respond well to X-ray in combination with high-frequency currents.

Mycosis Fungoides.—Nearly a year ago Dr. Gwathmey reported a case of this dread disease, which was showing marked improvement under X-ray treatment, since which time several cases have been reported, two or three as apparently cured, others very much improved; it allays the intense itching very promptly.

Psoriasis responds promptly, but the treatment does not prevent return, but it is claimed that a persistence in the treatment will render the attacks less frequent and severe.

Favorable reports are recorded in many other skin diseases, which I have had no experience with, so will not discuss. Diseases such as rheumatism, goitre, fistulæ and leukæmia are treated by means of X-ray mainly as an adjunct.

Tuberculosis of the lungs is benefited in the early stages, used in conjunction with other measures, besides being most valuable as an aid to diagnosis.

I cannot close this paper without a word of warning and caution with regard to X-ray burns. If handled carelessly we are not only liable to do damage to the patient but X-ray workers are in danger of getting painfully and seriously burned. Some authorities claim there is no such thing as idiosyncrasy, but I have found a marked idiosyncrasy in some patients. Generally speaking, fair complected people and such as will easily become sunburued, will be most liable to be burned by Y-rays, yet the worst burn I ever got was in a negro. The character and vacuum of the tube and even different tubes of the same vacuum will have strangely different effects. Distance of the tube or target from the surface, condition of atmosphere, dryness of the skin, etc., all are factors in the production of burns. It is believed by most observers that when a superficial burn occurs, that the pathological process is immensely benefited; under this assumption in malignant diseases we deliberately ray the patient and increase the intensity, until we get a slight burn.

In conclusion let me say: That a low tube is more apt to cause a burn than a high one, that some tubes have, or develope suddenly a tendency to burn, regardless of their vacuum; that the nearer the tube and the stronger the current the more apt we are to get a burn, and that idiosyncrasy plays an important role.

Dangers of Infection Which Lurk in the Telephone. *

By R. S. Stanley, M. D., Randolph Building, Memphis, Tenn.

The physician wages a lifelong battle against disease. It is the lot of a few of this band of fighters to inaugurate a new era of tactics and by bold innovations or far-reaching discoveries to win dazzling victories over the foe. But the vigilant sentry on the outpost duty can often save an army by his watchfulness, or the active scout can warn against the hidden ambuscade. Pasteur and Koch are the great generals who have planned the campaign against the germs that ever attack the human system; it is my humble task today to sound the alarm of a lurking place of disease hitherto unsuspected, so far as I know, from which we must dislodge the enemy.

I refer to the telephone, which has been with us but little over a quarter of a century, harmless enough in appearance, but only too apt to shelter the insidious germs which weaken the healthy and lay low the weak. In particular, I wish to dwell on the diseases, tuberculosis, diphtheria and syphilis, which lurk in the telephone, to illustrate the extent of these dangers by statistics, and briefly to indicate the precautionary measures to be taken to minimize the evils attendant upon the use of this most convenient and indispensable instrument.

It may not be amiss to sum up briefly the ravages from the above-mentioned diseases, so as properly to estimate the dangers to which we are exposed.

Dr. Prudden states that tuberculosis affects one-half of the human race, that one-seventh of mankind die of it, one-third of whom die between the ages of 15 and 45. More exactly, one-fourth (28.7 per cent.) of all deaths between the ages of 15 and 24, one-third of all deaths between 25 and 34, and one-fourth of all deaths between 35 and 44 are due to this disease alone. The money loss alone is immense. The average earnings of a man in the working period of his life are computed to be $12,600. Those of the consumptive are estimated to amount to no more than $4,000 on the average. Here is a loss of more than $8,500 per man, a

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total loss to the United States of more than a billion dollars a year from consumption alone, to say nothing of the sorrow and anguish and privation involved.

The exact figures, taken from the United States census reports, are as follows:

In 1880 in the United States there was a death rate from consumption of 124.75 per 1,000 deaths from all causes. In 1890 in the United States 102,199 succumbed to this disease, or 121.49 per 1,000 deaths from all causes, a slight improvement, as will be noticed.

In 1900 in the United States 109,750 died of consumption, a death rate of 109.9 to 1,000 deaths from all causes, again a steady and increasing gain. The death rate for England and Wales for 1890 was 133.8 per 100,000 of population.

How much may be accomplished by intelligent measures of precaution may be gathered from the fact that in England and Wales in 1870, 2,410 per 1,000,000 died from consumption, while in 1896 the rate had fallen to 1,307 per 1,000,000, a clear gain of about 40,000 lives per year. This result was mainly obtained by inspection of meat and milk. In New York city the death rate from consumption fell since 1881 40 per cent., there being 418 fewer deaths in 1902 from consumption, though the population was 700,000 greater. To come nearer home, in Tennessee in 1890, out of a total of 23,834 deaths, 3,637 were due to consumption, or more than 15 per cent. In 1900 in Tennessee there were 2,951 deaths from consumption out of a total of 30,572, or more than 9½ per cent., a very encouraging improvement. Here in Memphis in 1890, of 1,000 deaths (243 deaths out of a total of 1,697), 159.24 were from consumption, a very high rate indeed, while in 1900 there were 278 deaths from this cause. It may further be noted that in the colored maps accompanying the census of 1880, Western Tennessee west of the Tennessee river is colored deep red, showing a death rate from consumption of 175 and over per 1,000 deaths. In general it may be said of all those living in the United States at least 10,000,000 will die from this scourge, a ghastly total which should nerve us to fresh efforts to root out this disease.

From diphtheria there died in the United States in 1900, 28,959, or 29 in 1,000. In 1890 the corresponding portion was 49.7. In Tennessee in 1900 there were 345 deaths from this disease, of which 10 took place in Memphis.

From syphilis there were in 1890 in the United States 1,619 deaths; of these 58 were in Tennessee. In 1900 in the United States there were 1,591 deaths from this cause, of which 32 were in Tennessee and 6 in Memphis.

It will be noted that there has been a decrease in the death rate in these three diseases since 1880. But when we consider the enormous advances made in medical science during this period and the great advantage derived from a clear and definite knowledge of the germs of disease and their mode of growth, it might reasonably have been expected that the decrease would have been far more noticeable. That this is not the case must be due to some general cause operating to counteract our efforts, and I believe the telephone is the main if not the only cause. Found everywhere, but quite unsuspected, it has been a fertile hotbed of disease. I believe that here is the hidden source of infection and urge attention to the whole subject.

I have thus briefly indicated the magnitude of the dangers which threaten us, and now proceed to a short description of the germs and their mode of growth and the manner in which they find entrance to the human system.

The whole theory of germs was placed upon an intelligent basis of Koch's discovery in 1882 of the bacterium of tuberculosis. The tubercle bacillus is a rod-shaped fungus measuring three-thousandths to thirty-five-thousandths of a millimeter in length and about one-third of that measurement in thickness. 100,000,000 of these germs could live in a teaspoonful of milk. The tubercle bacillus forms spores while in the lungs, and these spores possess extraordinary vitality and impregnate the sputum of the patient. Becoming dried and forming dust with the mucopurulent products of expectoration, they pervade the apartments and dwellings of tuberculous patients. One bacterium introduced into the blood may in seventy-two hours give origin to more than 60,000,000 of bacteria. They are everywhere in the air. In Paris more than 55,000 of these germs were found in ten cubic meters of air. These bacilli preserve their virulence and capacity for development for from six weeks in decomposing sputum to six months or longer in the dry state. It is even stated that they have preserved their virulence after twenty-three years.

Germs of disease come to the human system through the medium of food or drink or through the air we breathe. It is with the latter that we are here concerned.

The telephone is generally placed in the hall of a private residence. This hall is apt to be cold and draughty. The consumptive coming from a warm room is exposed to the cold air, which brings on a hacking cough, and the excitement of telephoning tends

also to produce this same cough. This cough sends particles of the sputum flying into the transmitter of the telephone, to which they adhere till dried into dust. This dust is stirred up by subsequent users of the telephone, and is taken up through the mouth into the lungs. For it is the unfortunate habit of most people to remain at the telephone with parted lips while listening to the answers to their questions. This is indeed the natural and typical attitude of interested attention. It is, however, full of danger, for it allows an easy entrance to germs which otherwise would have been arrested in the nasal passages. A consumptive coughs up in twenty-four hours at least 200,000,000 germs. What fearful dangers may lurk in a telephone which has been used by one of these unfortunates!

It may be urged that consumptives would not be in a condition to use the telephone. It is far too often the case that employes in stores and offices (a class extremely liable to consumption, as statistics show) are forced by want of means to continue at their work, though consumptives, until the disease is far advanced. In the daily course of their duties they use the telephone constantly, and, as I have pointed out, charge the transmitter with germs which carry the disease to healthy persons who might otherwise have escaped. Furthermore, few are free from tuberculosis. All are exposed to infection; some are capable of resistance and overcome the disease, but they are liable to spread the infection during the period of their recovery from a disease of whose presence they themselves are quite unaware.

Cornet, of Berlin, found bacilli of tuberculosis in the nasal cavities of 75 per cent. of the apparently healthy men whom he examined. Think, then, that millions of germs may find daily lodgment in telephones, from which lodgment they may sally forth later to deal death right and left among the unsuspecting victims.

With diphtheria the case is similar. Shreds of membrane are sometimes coughed up, charged with bacteria. Diphtheria is, it is true, mainly a disease of childhood under 10 years of age, but may occur up to 50 years. Children are fond of using the telephone and are especially eager in their utterance, and so would charge the telephone with germs. The germs of diphtheria are long-lived and cling to different objects with great tenacity. The telephone would readily harbor these insidious enemies of our health. Here again it may be noted that the greatest danger in the spread of diphtheria comes from ambulatory cases, in which symptoms are so slight as not to prevent the patient from going about. A mild case may thus beget severe or malignant cases in others. The bearing of this fact upon our present theme will readily be recognized by all.

Lastly it may be noticed that the long distance telephone is most dangerous from another point of view I have repeatedly noticed that on lowering the receiver spittle has trickled down into my mouth. Some previous user, taller than myself, has, in his eagerness of conversation, sputtered in to the transmitter. The saliva of a syphilitic subject might thus be communicated to one with a slight abrasion of the lips. The dreadful results which would follow may readily be conceived. A possible infection of innocent persons from this fearful disease in this manner should be carefully guarded against.

I am convinced that there is danger of infection in the telephone. The strong and healthy may throw off the disease, repeated implantations of the germs may wear down the weak or those who through heredity are susceptible. For these there is little hope. Their summons has come to join

"The innumerable caravan which moves
To that mysterious realm where each shall take
His chamber in the silent halls of death.
They must summon up their courage to face the inevitable,
Seek the comforts of religion and, sustained and soothed
By an unfaltering trust, approach the grave
Like one who wraps the drapery of his couch
About him and lies down to pleasant dreams."

The question now arises, What shall be done to minimize or remove the dangers of the telephone. That this can be done may be gathered from the experience of a hospital for consumptives in Chicago, where, with an average daily attendance of two hundred patients, such attention is paid to scrupulous cleanliness that in twenty years not one physician or nurse employed has contracted the disease. We must take this lesson to heart and act accordingly.

Germs do not yield to cold. They resist a temperature of 300 degrees F. below zero. They yield to heat but not under a temperature of from 212 degrees to 230 degrees F. above zero for prolonged periods. But sunlight is a deadly foe to bacteria. The telephone then should be placed by the window where for some hours each day the rays of the sun may shine directly upon the transmitter. The dark boxes with doors, in which in so many stores the telephone is placed, should be done away with. Privacy is too dearly purchased at the expense of disease and death.

Secondly, the telephone transmitter should be constructed so that the parts can readily be taken to pieces, and each day they should be thoroughly wiped with damp rags, which rags should then be carefully folded

together, placed in a covered receptacle and carried at once to a fire and burned.

Thirdly, the company owning the telephone should be called upon to send a man at regular and frequent intervals to disinfect the telephones with some suitable disinfecting fluid.

Fourthly, physicians should urge consumptives and those suffering from diphtheria and syphilis to abstain from using the telephone, or else to use the utmost precaution that none of the sputum fly into the receiver. All should be advised to keep the mouth closed when at the telephone except when actually speaking.

The words of Pasteur should be borne in mind: "It is in the power of man to cause all parasitic diseases to disappear from the world." To do so we must attack the germs in all their hiding places, and one such I believe the telephone to be.

Gentlemen, I have now placed the matter before you. I have given the statistics of the diseases of which I elected to treat; I have traced the life history of the germs of these diseases and the modes in which they find lodgment in the human system; I have indicated the dangers which I believe to lurk in the telephone, and have briefly suggested the remedial measures which in my opinion should be taken. I have acted the part of the simple scout and have detected the hiding place of the enemy. I now hand my report to those higher in command who must organize and lead the attack upon the lurking foe. In other words, I strongly urge that the matter be taken up by practical bacteriologists who will make the necessary tests to prove the theory I have just advanced.

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Management of Some of the Every Day Diseases and Injuries of the Eye.

By H. L. Myers, M. D., Norfolk, Va.

Believing that we can sometimes be of service to each other in considering the small things which come before us in our daily work, I have chosen this unclassical subject with the hope that I may suggest something of benefit to those of this Society who devote themselves chiefly to general medicine, but who occasionally have to treat diseases and injuries of the eye.

I am sure every one of us has noted with disappointment the lack of detailed description of the treatment of diseases of the conjunctiva and cornea in the average textbook. Numerous collyria will be mentioned and strength of solution given, but when and how to use them is generally omitted. The treatment of iritis also needs close attention if it is to be scientifically and safely administered. The same may be said of the description of treatment for eye injuries, although this subject is generally opened to less criticism than that of the treatment of diseases.

In considering diseases of the conjuntiva I desire to say that my own experience has taught me that acute cases have seemed to receive no benefit from the collyria which you usually find recommended for these cases, and I may say that I have seen them actually irritate that eye to such an extent that the attack was, if anything, prolonged. A case of acute catarrhal conjunctivitis is generally self-limiting, but the attack can be shortened by proper treatment. It requires, in the first stages, only cold applications to the lids until the secretion becomes muco-purulent and copious, when the eversion of the lids (upper and lower at the same time) and painting their under surfaces with a 2% solution of nitrate of silver, immediately neutralizing the excess with a mild saline solution, will do more to cut short the attack in one application than the use of such collyria as sulphate of zinc, etc., dropped into the eye will do in a dozen applications. The result is more lasting and chronic conjunctivitis less likely to supervene. I make such applications daily if discharge is profuse—every other day if mild. The eye should be cocainized with a 4% solution of cocaine before using the silver as it is sometimes quite painful. The patient is quite willing to stand the temporary discomfort to get quick results. What has been said of catarrhal conjunctivitis applies equally well to purulent conjunctivitis or ophthalmia except in these cases it is necessary to keep the eye clean by irrigation with mild bichloride solution or a saturated solution of boric acid and the silver solution should be used once daily. Atropine should also be used in 1% solution once or twice daily in order to keep the pupil dilated and the eye at rest, and to prevent iritis which is very apt to accompany this form of ophthalmia.

I have been asked by many practitioners, "How on earth do you manage to evert the lids of an infant a few days old?" It is perfectly easy. Spread a towel over your knees, let the nurse place the infant on its back in her lap with the head towards you, place the infant's head on the towel, letting it come in between your knees so as to steady it, catch hold of the edge of the

* Read before the recent meeting of the Seaboard Medical Society.

upper lid, pull it downward, with the other hand place a probe armed with cotton in the middle of the lid and push down while you raise the edge with the other hand and the lid will be easily everted If it is the right eye the right hand should grasp the edge, if the left the left hand so that when everted the left hand can be placed on it to hold it back while you pull down the lower with the other hand. The upper lid should be held with the thumb and the lower lid with the index finger of one hand leaving the other free to swad. In order to make the application quickly I use a probe armed at both ends with cotton, one end saturated with the silver solution, the other with the salt solution, so that as soon as the silver is applied the salt can be used almost instantly without loosening the hold on the everted lids. It is almost useless to attempt to cure cases of ophthalmianeonatorum and gonorrheal ophthalmia by using nitrate of silver dropped in the eye, and I wish furthermore to state that silver nitrate is, in my opinion, the safest and surest drug to use in these cases. The new preparations such as argyrol, protargol, etc., having failed to be of any benefit in these cases in my hands. If corneal complications occur in this disease it is well to touch the ulcer every other day with a 1 to 500 solution of bichloride of mercury, a small wisp of cotton twisted on the end of a probe or a small camel's hair brush is used to make the application. In the early stages when the lids are much swollen iced applications made by keeping thin layers of cotton on a block of ice until very cold and then laid over the lids, replacing them by others as they become warm, are advisable. In the later stages when secretion is profuse and the lids less swollen I have gotten better results from hot applications. As chronic conjunctivitis is generally due to causes requiring correction of refraction, or something demanding surgical treatment, it is probably better to refer them to an oculist. It is in these cases, however, that such collyria as solution of sulphate of zinc are indicated until radical treatment can be instituted. Follicular, granular conjunctivitis or trachoma demand surgical treatment in most cases. Marginal blepharitis, often improperly called granular lids, is a disease of the lid margin primarily, though it may involve conjunctiva, cartilage and skin and meibomian glands. The hair follicles become involved and a secretion is thrown out from these follicles and dries in scales at the roots of the lashes. The eyes become very much irritated and close work is frequently impossible. It requires vigorous treatment in bad cases to cure, involving correction of refraction, regulation of habits of life, etc. Locally the eyes should be bathed night and morning for five minutes in an alkaline solution (I use one teaspoonful of soda bicarbonate to one quart of hot water) until these little scales are dissolved, the edges of the lid should be cleansed entirely of all scales with a sponge, and if necessary the gentle use of the finger nail, and then a small quantity of a salve consisting of hydrarg. Oxide flav. in vaseline, grain one to drachm one should be rubbed into the roots of the lashes. In severe cases this should be done once daily, in mild cases every other day. I wish to emphasize the necessity of having the lid margin free of scales before applying the ointment, as neglect of this part of the treatment often destroys in large measure the efficacy of the salve. When one is confident that he has to deal with a case of iritis—unless he is familiar with the use of the ophthalmoscope—he had best refer his patient to an oculist as a few hours delay in this disease may mean loss of vision.

Iritis can usually be diagnosed from conjunctivitis by greater pain, radiating over brow, contracted pupil, disturbed vision and lack of secretion. There are cases, however, which give rise to almost no pain, very little or no congestion, have a dilated or normal pupil and whose only marked symptom is dimness of vision, this is serous iritis and is one of the most dangerous and distructive forms. Such a case could not be properly treated without a special knowledge of the eye. In most cases, however, where a plastic iritis is certain I think it wise to use frequent hot applications to the closed lids, drop into the eye every four hours a 1% solution of atropia sulph. and for the relief of pain I find generous doses of salicylate of soda gives me good results. In cases where syphilis can be made out antisyph. treatment probably by mercurial inunction, and in the tertiary stage iodides internally will generally produce good results. It may be well here to say that the promiscous use of atropine in iritis often produces deplorable results. Whenever its use seems to increase the pain, or when the pupil is even slightly dilated when the case is first seen. I mean more dilated than the unaffected eye its use is clearly contraindicated, when, however, the pupil is slightly contracted, the iris of muddy color or lustreless, it should be used and used as long as it maintains comfort—good dilatation and there remains any congestion.

The most common injury the general practitioner is called upon to treat is foreign bodies under the lid or on the cornea.

Those lodged under the lids require only removal after everting the lid. Those on the cornea, however, demand closer atten-

tion as upon their proper handling may depend the sight of an eye.

There is not an oculist within the sound of my voice who has not had the sad experience of trying to save an eye with an ugly infected ulcer gradually but surely eating away the cornea, which has been caused by the unscientific and uncleanly removal of a foreign body at the hands of some careless physician. In some cases the foreign body itself is septic and unless seen early the mischief has been done before the doctor sees the case, but in the larger majority of cases the foreign body can be extracted and the eye suffer but little as a result of the accident.

The first care is to cleanse the patient's face around the eye, then cocaine the eye itself and wash out the sac with a 1 to 4,000 solution of bichloride of mercury, boil thoroughly every instrument that is going to touch the eye, cleanse the hands thoroughly, and then with a good light, preferably a light focused on the eye by a magnifying glass from a lamp placed at the side of the patient corresponding to the injured eye, insert the sharp point of the instrument (any sharp pointed instrument will do) under the foreign body and gently pick it injuring the delicate epithelium of the cornea over as small an erea as possible. If the particle to be removed is steel and has been in the eye for several hours, and on removal of the particle the cornea presents a brownish discoloration where the particle has lodged this discoloration should be gently but firmly scraped away as it is capable of producing as much harm as the foreign body itself. The eye should then be irrigated with a 1 to 4,000 bichloride solution, a drop of 1% solution of atropine instilled, and a dressing of cotton and a bandage placed over the eye. For the pain following the removal of foreign bodies I have found hot or iced applications to give great relief. Never attempt to relieve pain from ulcers or injuries of the cornea by giving the patient a solution of cocaine to drop in; it only relieves temporarily and tends to aggravate the pain and trouble afterwards. In ulcers it is positively detrimental. If pain is too severe an opiate had better be used but never cocaine. Penetrating injuries of the eye demand the services of an oculist. The eye should however, be cleansed—a drop of atropia instilled and a bandage placed over the eye as soon as seen.

Burns from chemicals, such as lime, demand special attention. Avoid the use of water when lime is to be removed from the eye. Milk is a good wash and is generally obtainable. Then it should be treated by oily solutions, such as castor oil in which boric acid has been incorporated, the lids should be separated widely to avoid symblepharon.

Burns from solid substances like molten lead, iron, ashes, etc., require removal as described under treatment of foreign bodies and the continued use of oily collyria. Atropine is generally indicated in all cases where the cornea is involved as it is the great corneal sedative, and it puts the eye at rest by suspending the function of accommodation.

It is well to use freshly prepared solutions of cocaine wherever the corneal epithelium has been broken, as it has been proven that old solutions are quite often, if not always, septic.

The Diagnosis and Treatment of Tubercular Peritonitis.*

By George Tucker Harrison, M. A., M. D.

Tuberculosis of the peritonæum exhibits itself clinically in three forms:

1. The form that is characterized by a copious serous exudate (*tubercular ascites*). The typical tubercular nodules are disseminated over the entire visceral and parietal layer, the peritonæum itself is thickened, hyperæmic and presents all the phenomena of inflammation. The picture shown histologically is that of the typical tubercle and hence the diagnosis is generally easy not only microscopically but macroscopically.

2. The form known as the *dry—Peritonitis tuberculosa sicca adhæsiva nodosa.* The distinguishing features are the formation of adhesives as well as large nodular tumors on the peritonæum, in the omentum and in the mesentery. The tumors mentioned may, in some cases, be represented simply by fibroid induration. The adhesives are at times exceedingly dense and firm. Shrinking of the peritonæal folds is often observed.

3. The *ulcerative purulent form*—or *circumscribed encapsulated purulent ascitic form*, due to coalescence of tubercular nodules to large caseous masses and corresponding change of the mesenteric glands. This form is combined at times with extensive caseation, necrosis, suppurative and ulcerative processes in the intestinal wall, so that a perforation of the disintegrating nodule into the lumen of the intestine may occur with the development of a fistula, as a consequence. The diagnosis of tubercular peritonitis is at times easy, but under certain circumstances, may present difficulties almost insuperable. To quote the excellent remarks of von Rosthorn,[1] "only the mi-

* Read before the recent meeting of the Virginia State Medical Association.

1 Lehrbach der Gynækologie, Zweiter Auflage —p. 416.

croscopical picture of curetted or excised tipul masses and the demonstration of tubercle bacilli is discharged secretions or the positive success of the animal experiments undertaken with the latter (results of inoculation on the peritonæum of guinea pigs) may assure the diagnosis. All else is unreliable and may give occasion to manifold mistakes." On the other hand the negative result in the investigation for tubercle bacilli, proves nothing against tuberculosis, as experiment has amply shown that the latter may be wanting. The disease attacks with especial predilection young persons, and in childhood is by no means infrequently observed. The beginning of the disease is not attended by phenomena of such explicit character as not to admit of doubt. The appearance of ascites together with the symptoms which are evoked by it direct the attention of the patient first to the disease in question. Symptoms of so general a character as nausea, headache, thirst, insomnia, nightsweats, loss of appetite or emeses are naturally too indefinite to aid us in diagnosis. Cachexia is dwelt upon by most authors as an important aid in diagnosis. In a recent case which I saw in consultation, the patient, who presented the appearance of excellent health, marked by a good complexion and unimpaired nutritial condition, was found, on opening the peritoneal cavity to have the typical form of tubercular ascites cachexia. I deem it is by no means a universal symptom, although generally present. *Fever* may exist, but many cases occur in which no fever is observed. The symptoms of inflammation of the peritonæum are by no means conspicuous, abdominal pains may recur from time to time but do not attain the intensity of acute peritonitis from other causes. Tenderness on pressure is generally slight. Obstinate constipation is a striking symptom due to the shrinking of the mesentery and the external adhesions, and this may ultimately culminate in total occlusion of the intestinal canal. Sooner or later, in consequence of the accumulation of the exsudate in the peritoneal cavity, phenomena of dyspnœa manifest themselves as a result of the high position of the diaphragm. Of necessity also must follow disturbance in the circulation of the blood and tense condition of the abdominal walls. In a number of cases disturbances on the part of the bladder are observed. In the cases of women the clinical history will often elicit the fact that amenorrhœa and sterility exist. On palpating the abdominal walls nodular parts may be discovered, or there may be felt in Douglas' cul-de-sac the significant nodules. At other times, on making abdominal palpation, irregularly formed tumor-like masses are found, especially in the neighborhood of the umbilicus, or we may even find rather large cysts the walls of which are sticking from the want of tension. Close beside the cysts are felt the intestines feeling like cords while a gurgling sound is heard in them. According to Runge,[2] intestine plus cysts give a quite characteristic feel to the hand passing over them. The cyst-formation may be prolonged with the pelvis and it is in just such cases that these pseudocysts were so frequently, in the past, confounded with ovarian cysts. Having made this mistake in diagnosis twice. I may speak advisedly as to the difficulties in the way of accurate diagnosis. A thorough examination *per rectum* will enable us to avoid this error. We either feel the uterus to be free and are able to define the pseudocysts as separate from it, or, we feel a mass descending from above which completely invests the uterus and its lateral parts, especially the tubes, and at the same time being able to demonstrate the nodules on the peritonæum. In some cases the demonstrable changes in the tubes, by logical sequence, leads to the correct conclusion that the pseudocysts in the abdominal cavity and the collection of fluid are of a tubercular nature. The spleen should also be subjected to examination as it is almost always enlarged according to Fehling. In the case of the dry form in making a diagnosis, regard must be had to the difficulty in circumscribing the tumor, to the existence of parts of it which feel like cords and to the fact that it does not coalesce with the pelvic connectial tissue; it is possible also at times to feel nodules. These phenomena in connection with the clinical history and the finding of evidences of tuberculosis in other organs will lead to the correct diagnosis. Runge[3] observes that in the woman's clinic of Gottengen, for some time it has been the custom to curette the uterus to get scrapings when there was a suspicion of the peritonæal tuberculosis. In many cases the demonstration was made of the existence of a uterine tuberculosis and consequently the diagnosis of tubercular peritonitis was confirmed. In doubtful cases, von Ruthorn gives the advice never to neglect an attempt with the injection of the old tuberculin of Koch in order to see whether a typical reaction does not ensue. Korte,[4] calls attention to the fact that in intestinal tuberculosis this method is not without danger. "On the contrary," he observes, "the inoculation of guinea pigs with exsudate (Borchgrevink) in a number of cases has

2 Lehrbach der Gynækologie.
3 Gynækologie.
4 Handbuch der Praktishen Choringie, von Bergusen, r. Bd. III, p. 88.

confirmed the diagnosis of the tubercular nature of the exsudate." If in spite of all these methods the diagnosis still remains doubtful, an abdominal section is indicated. In doing this we should never neglect to cut off a piece of the diseased peritonæum for microscopical examination in order to make the diagnosis absolutely certain. It must be borne in mind that carcinoma of the peritonæum macroscopically is not always to be discriminated from tuberculosis. With reference to treatment, one or two remarks on prophylaxis may deserve your attention. As this paper is designedly suggestive rather than exhaustive, many important aspects of the subject must be left out of consideration.

Prophylaxis demands that tubercular foci should be healed as soon as possible or if there is no sort of tendency toward such a result that they be removed by an operative procedure as soon as possible. This should be done even if the local affection makes no sort of disagreeable symptoms in view of the fact that miliary tuberculosis may spread from such a focus at any time. Tubercular ulcers of the vulva, vagina and parts, should therefore receive appropriate treatment by the use of logical means as iodine, lactic and iodoform. In the case of *endormetritis tuberculosa*, there is no use in trying half-way measures, it is better to perform total hysterectomy, and if the tubes are the seat of tuberculosis, they should be removed likewise. When the disease attacks the tubes, and the uterus seems intact, it is nevertheless better, in the interest of the patient, to remove the uterus together with the tubes by the performance of a radical operation by the abdominal route, for we can never be sure that the affection has not already invaded the uterine cavity. The general condition, especially in young persons, should never be left out of mind, and such a treatment instituted before and after the operation as shall meet the requirements of modern views. It may be considered now as a well established fact that the treatment of tubercular peritonitis is a surgical one, and that the operative procedure consists in opening the abdominal cavity. The curative powers of this method was discovered accidentally by Spencer Wells in 1862, who opened the peritoneal cavity under the erroneous impression that he had before him an ovarian cyst, and, to his intense astonishment, found that his mistaken diagnosis led to the cure of his patient.

In 1884, Konig was able to show that laparotomy intentionally performed was followed, in a large number of cases, by the cure of the disease. Borchgrevink[5] rejects laparotomy for all cases. According to his investigations the cases treated after laparotomy would have been healed just the same without this operative procedure, as in them the tuberculosis was already in the act of healing. The laparotomy was here useless, consequently. It is absolutely injurious, according to him, in the progressive cases running their course with constant fever.

E. Rose commenting upon the observations of Naunyn at Strassberg, comes to similar conclusions. Wunderlich subjected to criticism 500 cases to be found in the literature, and supposing that after the lapse of three years, a permanent cure might be assumed, found that in the case of the form with ascites, 23.3 per cent. of cures, and that in the adhesive form there were only 9.8 per cent. which could be regarded as definitely healed. Against these newer views H. W. Freund takes decided ground, and is able to demonstrate from the cases that come under his observation, recovery took place as a rule, even in the most unfavorable cases. It may be laid down as a general principle for our guidance that after opening the peritoneal cavity in tubercular peritonitis, the tubes (in women) and the vermiform appendix should be carefully examined, and, if found diseased, should be removed. The operation is usually simple. An incision is made 8 to 10 cm. in length in the median line, taking care that the operation shall be a thoroughly aseptic one. By placing the patient on the side the fluid exsudate is allowed to flow out, the process being facilitated by tearing the walls of the pseudo-cysts with the fingers. In opening the abdominal cavity great care must be taken that the intestine be not incised, as, on account of the adhesion of the intestines to the abdominal wall, and the difficulty of their recognition, due to the circumstance that they are covered by pseudo-membranes, such an accident may easily happen. After the evacuation of its contents, the abdominal cavity is carefully dried by sterile gauze. The use of iodoform powder is advised by some authorities, but, I believe, is now considered to be unnecessary for a good result. Mikulicz advised that the abdominal cavity should be drained by iodoform gauze carried through the lower angle of the wound. This method of treatment has, within recent years, been abandoned. The reaction following this operation is slight and the healing process is smooth.

Lohlein in the case of women recommended entering the abdominal cavity by vaginal incision behind the uterus into Douglas' space, the advantages claimed being slighter shock, less danger of infection and shorter confinement to bed. Notwithstanding, I believe, this method should not

[5] Mittherlungen aus den Grenzgeliseten d'Medizinis, Chirurgie, Bd. 6, 1900.

be generally adopted, if for no other reason than that all have not a good survey of the affected area. It may be used in weak and cachectic individuals, however. To what factor we are to ascribe the efficacious effect in simple abdominal incision, in peritoneal tuberculosis, is by no means established with perfect certainty.

Hildebrandt speaks as follows: "After every laparotomy, when the peritonæum is healthy, there originates a paralysis of the intestines (meteorism and constipation) a venous hyperæmia, consequently, which persists for days, and an exsudation of reddish colored fluid with endothelial cells and a few pus corpuscles." He ascribes the healing forces to the hyperæmia of the intestines analogous to the Bier stasis-hyperæmia. Especially in the serous forms a number of factors must be taken into consideration; first, the evacuation of the exsudate by the abdominal incision, thence the dry condition of the peritonæum liberation of the compressed vessels, consequently, intense hyperæmia with better absorption, and finally, encapsulation of the tubercular elements by new formed connective tissue products. An important factor in the curative powers is likely the infiltration of the tubercle with leucocytes and consequent phagocytosis. A noteworthy fact is that after the cure of the peritoneal tuberculosis, a tendency to a restoration to normal standards is manifested in organs that had been affected.

The Business Side of Our Profession.*

By E. T. Dickinson, M. D., Wilson, N. C.

This is the most undeveloped and most neglected subject in the domain of medicine. We hold our annual State and monthly county medical societies and spend hours and days discussing the best methods of eliminating disease and helping the condition of others with few if any suggestions as to the financial compensation for the various individual and public services the physician renders.

Essentially the medical profession is the embodiment of philanthropy. It purposely limits its business success for the sake of the people. It strives constantly to improve the general health of every community in which it works, and every added help to public health means a decrease in the income of the profession. Its services to the public annually for which no charge is made is worth many times more than the entire amount the profession receives. Still the physician has the reputation of extortioning from the public more than any other class of men.

* Read before the Wilson County Medical Society at its regular monthly meeting, February 1904.

The relation existing between patient and physician is a peculiar one. It is the relation of friend with friend and business necessarily sandwiched between. How then does business mingle with professional duties; and how does a doctor attain both professional and financial success? Early in my career the sheriff of my county gave me an old and well tried key to this double question. He advised me to do my work so well that gratitude could not suffer me to go unpaid. It is true that people appreciate the first rate in medical service as well as in other necessities and will sooner or later find it, and those that have employed quacks, humbugs and those that are lax in their professional duties may easily be taught by good service to follow the better way. But unfortunately gratitude does not penetrate deeply nor last long in the human soul and must no longer be the chief financial guide for those who would prosper and succeed. Our patients demand of us that we be prosperous or at least they force us to the expense of appearing so and it is plainly our duty to accept the situation as they offer it and make it a real success.

The life insurance companies have a special genius for this. Whenever a company feels a need of a new examiner in any community it makes a thorough search for the physician who has toiled for a number of years building up a reputation and influence both of which work greatly to the financial advantage of the company. Some of these then seek to get not only the work of making the examination but all the influence that can be brought to bear for as nearly nothing as possible. To the credit of the profession and some of the more honorable companies the three-dollar rate examinations have almost ceased to be made. We cannot be conscientious and fair if we give our best service and influence alike to those amply able but paying different fees for examination.

Not long ago the New York Life Insurance Company honored my neighbor with a three-dollar rate appointment. For some reason or otherwise he proved unsatisfactory and a special agent was sent to confer the favor upon me. But I refused and notified my neighbor that the way was paved for him to secure five dollars for every examination or force the company from the territory and leave it to those who pay more. Since then no second rate fee is paid in the community and we both as well as the entire profession are benefited. Such a course also serves to inspire confidence into the low-rate man and helps him to build up his general fees. Often one physician cuts his fees because he believes his neighbor will cut. When there is an established price in

the community one gains more money and influence by holding to the schedule than by varying from it. Once the reputation of varying and reducing has been established, there is no end to comparisons with the charges of others, thus inviting disputes and dissatisfaction over every bill on regular charges, then discount according to inability to pay and collect the difference in every case by one means or another.

On one occasion I was called to treat a railroad accident case and to give all the attention the patient might wish. When all was over and the bill rendered, I received a check for one hundred and fifty dollars rather than three hundred with the statement that the remainder could be collected only by a jury of twelve. This was done promptly, the jury out only about three minutes.

But the success was due entirely to the fact that all three of the doctors who testified, stated, unhesitatingly, that the charges were not exorbitant. Naturally I did not get the next case from the same source, but one of those testifying did and collected his fee without trouble. Thus we both gained directly by procedure, and the other two indirectly. In this way we often have opportunity to make reasonable demands for ourselves and to let corporations have justice and to see to it that they no more set the fee according to their own schedule than the poorest man in the community sets it to his.

The American Medical Association of which we are now a part has advised that the ministry as a class be placed upon the pay list. Just why they were ever exempt is not clear, and it seems doubtful if they prefer the position they occupy in this respect. I know that some prefer to pay and do pay for every service.

And there are good reasons for the preference. Preachers as well as other people wish to keep clear of embarrassing obligations and awkward situations. This freedom allows ease in the selection and exchange of physicians. But perhaps not all will be so inappreciative as one was with me. After a long service he called in my nearest competitor to the next petty trouble for the stated purpose of giving me a rest, not thinking or caring about the effect the change might have on the neighbors, and then after all were cured declared that "Peruna is a fine tonic."

To allow these to go on the pay list would at least dispel the feeling of fear that they might not be getting the very best attention, the first morning call, or as many night calls as the next man. I believe the American Medical Association would do for them just what they would do for themselves. If we are so able to give and they so favorably situated to receive let us do it in the regular way along with other people and give them no more reflections of hand-to-mouth poverty. It would at least be justice for each one to be encouraged to pay if he prefers.

The average of the physician's yearly income is less than that of any other profession both in appearance and reality. The entire annual income of the two hundred thousand physicians in the United States is one hundred and fifty million dollars, or a little less than seven hundred and fifty dollars each.

This does not compare favorably with even the ministers salary when we take into account the additional demands the public makes upon the physician. He must keep one or two horses and carriages in the best of condition and style; must be the most comfortably and most tastily dressed, and wear the brightest face of any man in the community. He must have a well equipped office and well kept residence in the most expensive section of the town in which he lives; and finally, must pay an annual license tax for the privilege of exercising his philanthropic spirit on the needy public.

When our friends and the public learn these facts they will no longer marvel at our reasonable charges and will perhaps pay our bills as promptly and as willingly as they do their grocery bills. The three proper and least objectionable times to render a statement are before any service has been rendered, or immediately after the completed service has been rendered, or at the end of the month following a completed service, and the patient should be appreciative enough to pay it or make satisfactory arrangements. Otherwise he should be forced to do so.

The growing tendency of the profession to tell the patients and the public everything is a great menace alike to financial, professional and individual success. I know many physicians who tell their patients in detail the numerous drugs and proprietary concoctions they are giving and describe the wonderful physiological effects and phenomena that may be hoped for and expected, but too often do not come. This idea they get from the proprietary medicine man who comes every twenty-eight days to deliver the only really enthusiastic and impressive lecture on materia medica and therapeutics that we can remember to have ever heard. We do not get the results so beautifully described and we come to grief by way of lost confidence on the part of the patient. Besides our patients do not pay us to teach them materia medica and proprietary therapeutics, nor does it pay them to be taught this

useless and dangerous "little learning." Every physician does his patient and himself a long-lasting injury whenever he gives the name of even the most simple remedy. Idiosyncrasy and quinine are unrecognized when the name of the drug is not given, and morphine has no habitue in those who do not know its name. Calomel acts more perfectly on the ignorant and patent medicines whose composition is entirely unknown has its effect on all. We all know that people will have patent medicines because they think it cures. Likewise the physician has less trouble and greater professional and financial success when he has learned to keep such knowledge as belongs to himself. The human mind is always attracted by the unknown and is constantly dwelling upon it. Mystery is a charm and a magnetic drawing card for the public and we should use it to their interest as well as to our success and let it no longer be necessary for our friends to stealthily take secret nostrums while we are using the scientific and only curative remedies.

But the profession is fast going astray on the one subject of materia medica so that it may soon be numbered with the lost arts. An examination of the prescription files in the various sections of the State show that forty-one per cent of the prescriptions contain proprietary medicines. These are usually compounds of numerous ingredients.

I examined one prescription containing six proprietary names that further analysis proved to contain forty-two different drugs. It is certain that its author should have had the time to calculate the resultant effect but it is doubtful if any human mind is trained to the requisite ability and patience. This tendency of multiple combination is unbecoming the analytic genius of the age. The analysis and reduction of drugs to their active principles is the only reasonable method and no one deserves either the name or the fee of physician unless he can foretell the physiological tendencies of the remedies he prescribes,

Chronic Ulcers of the Leg.

By J. A. Reagan, M. D., Weaversville, N. C.

I have read with some interest the article written by Dr. Blankinship on the above subject, and while I have mainly followed about the same treatment of those cases, with the addition of the rubber-silk stocking, yet I cannot say that the treatment was as successful as desired. In most cases the sore would break out again. The cure was not in most cases a cure; but this subject caused my mind to run back to over sixty years ago. Our family physician was a Dr. Wright. He was regarded as the best physician in that part of Tennessee in that day. He was sent for some thirty miles to see a man who had a very bad sore leg. After examining the ulcer he called for a pint of whiskey. He put it in a small coffee pot and placed it on coles till it boiled. He had some men to hold his leg from over the bed and others to hold his body while he poured the boiling whiskey on every part of the ulcer until it was burned out. There was no chloroform or anesthetics at that time. When he completed the burning of the ulcer out in every part he said: "It is now nothing but a burn, and any old woman can treat a burn." The ulcer got well, and if it ever returned I never heard of it. He was a rough, but intelligent physician. I will give one other case that you may see the nature of the man. He was called to see a man suffering of hickups, some fifty miles from his home. The man had been suffering for some four days and nights, and his physician could not relieve him. At that day antimonial wine was in general use as an emetic. Dr. Wright examined, poured out some of the wine in two small glasses, told him to drink one, and he stepped out. It had been raining and he found a small toad, put it in his pocket, and returned to the room. He said to the man: "My Lord, you have drank the wrong glass, and unless I can puke you in ten minutes you are a dead man." He gave him the other glass, and he drunk it, when the wine had produced the desired effect. He had in holding his head put his hand over the man's eyes, and as he was throwing up he dropped the toad in the vessel and said: "Now, there is the thing that caused all the trouble. You are well now " And he was for his hickups were scared and puked out of him. The doctor loved to tell about burning the ulcer out and of the treatment of the man who was suffering of hickups. The Arkansaw doctor must have been close akin to Dr. Wright. I have never had any desire to practice anything that he used to tell of his wonderful success.

The Serum Treatment of Typhoid Fever.

Chautemesse (La Presse Medicale) believes that under treatment by his serum, which is derived from horses which have been introduced by a soluble typhoid toxin, the mortality from typhoid fever is reduced to 4 per cent. as against 18% in other hospitals in Paris where the ordinary hydrotherapy is employed. Complications are less likely to occur under the serum treatment, especially when it is employed early in the disease. The dosage, as is the opposite of the case in diphtheria, should be less in the severe infections than in those of mild degree. The author's experience is based on 523 cases treated by his method and 2,618 cases treated at other Parisian hospitals.

The Serum Treatment of Hay Fever.

Lubbert and Prausnitz (Berlin klin. Wochens,) say of Dunbar's serum for hay fever that it is not definitely curative, merely causing the disappearance of the disagreeable symptoms of the disease, and having an action very limited in duration, lasting but a few hours, and necessarily being repeated. It may be applied locally, in which case, if it is thoroughly aseptic, its application occasions no inconvenience, or it may be injected subcutaneously; but the injection, provokes a tumefaction at the point of injection, painful sensations, itching, etc.

The serum, moreover, has the inconvenience of being very stable, and decomposes readily, with a consequent loss of activity. To it may be added, it is true, carbolic acid in the proportion of $\frac{1}{4}$ per cent., but its conservation is not greatly augmented by this, and carbolic acid is not well borne by certain individuals. The dry form of serum prepared by Dunbar, mixed with milk sugar, preserves better, but is very unreliable in its effects. Nevertheless, its employment is much easier, and it may be introduced either into the nasal fossæ or in the conjunctival cul-de-sac without other inconvenience than a passing sensation of a foreign body.

Dunbar's serum, employed in 285 patients of all countries, gave 171 successes (60%); 83 incomplete successes (29%), and 31 failures (11%). It is necessary during and following the serum treatment to continue the customary hygienic precautions—closing of doors and windows at night during the hay fever season, avoidance of exposure to the sun's rays. Moreover, the serum must be employed in the morning, before the toxic pollen has had an opportunity to irritate the nasal and ocular mucosæ, otherwise the antitoxic effect of the serum is greatly diminished.

The hygienic precautions are important and the success is not complete in certain subjects where these are not well applied. In others, success has been only partial because they have not been observed, or nil because the patients are not attacked with periodic coryza. In the case of partial success it is at times the ocular symptoms, at other times the nasal symptoms which are attenuated.

The pollen toxin isolated by Dunbar from the pollen of graminaceous plants, prior to the preparation of his serum, has been experimented with by different observers in various countries. All of the observers have established the fact that subjects attacked with hay fever react to this toxin, to which healthy subjects display very little sensibility or are indifferent. This fact is in favor of the uniformity in etiology of hay fever in all countries. Thost used this toxin for the purpose of making a diagnosis between acute periodic coryza and nervous coryza and several other diseases.

Treatment of Infantile Syphilis.

Still, in the London Medical Lancet, says concerning infantile syphilis and its treatment that the only question is as to what form of mercury should be administered, and in what dose and for how long. There is no form more generally useful for infants than gray powder. Combined with aromatic chalk powder, one-half grain can usually be given three times a day without causing disturbance of the bowels. Inunction of unguentum hydrargyri may be used either alone or in severe cases in addition to the internal administration. A piece about the size of a green pea, which is a rough way of estimating 15 grains, is gently rubbed over the abdomen or inside of the thigh or arm at night, and left covered with a flannel bandage until the following morning, when it is washed off. This is to be repeated every night, unless the skin shows signs of irritation. By one or the other of these means even the most severe cases can rapidly be brought under the influence of mercury. The author does not give intramuscular or intravenous injections of iodine or mercury, which have recently been advocated in infantile syphilis. Iodides have their use in the treatment of syphilis in the first years of life. They can often with advantage be given associated with the mercury. The disappearance of symptoms is no indication for stopping treatment; there are cases in which, under mercurial treatment, all symptoms disappear in three or four weeks, but if the mercury be discontinued symptoms will certainly reappear. Treatment with mercury should be continued for at least six months after the disappearance of active symptoms of syphilis. Where symptoms tend to recur when treatment is omitted, it may be necessary to continue it for a year or more.

Antipyrin in Sciatica.

Scheuer, according to the Journal de Medecine, has used intramuscular injections of antipyrin in the treatment of sciatica. The antipyrin is dissolved in a small quantity of boiling water, and from 10 to 15 minims of the solution, containing about 10 minims of the drug, is injected deeply into the posterior surface of the thigh as near as possible to the nerve trunk. It is most important that the injection be made deeply into the muscular structures, otherwise an acute and painful reaction follows if much of the fluid is deposited in the subcutaneous tissue.

Charlotte Medical Journal
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- - - - - - - - - - - Charlotte, N. C.

OSTEOPATHS DEFEATED IN NORTH CAROLINA.

Recently a bill was introduced in our legislature to create a medical examining board for the osteopaths. The bill was referred to the Committee on Public Health, and after a careful consideration they reported it unfavorably. The bill was ingeniously constructed, whether purposely or accidentally we are not able to say, particularly the part bearing upon the definition of osteopathy. It provided that the members of the osteopathic school have the privilege of using all natural means for the cure of disease.

If the bill had been reported favorably and it had become a law it would have opened up a new channel for litigation between the regular medical profession and the osteopaths. The Supreme Court would have had to decide what are natural means used in the treatment of disease. The osteopaths would construe it to mean all animal products, all vegetable substances, and all mineral remedies. All of them are natural means or could be so considered. These three groups include about all the medical means employed by the regular practicing physician. As it now stands the osteopath has the privilege of practicing his specialty, which is the use of water, the use of electricity, massage and instructions to diet and hygiene. This is all he has the legal right to do, and it is a specialty with too narrow limits to be recognized as a separate school of medicine. All the principles of osteopathy are taught in regular medical schools, and every regular well informed physician ought to be competent in all the principles taught and practiced by osteopaths.

We have no desire to question the belief that those who advocated the passage of this bill believed that they were doing a wise thing, both for the osteopathic group of practitioners and the people of the State. We believe their judgment was defective, and it was so construed by the Committee on Health. Their enterprise was too full of inconsistencies and dangers to appeal to that intelligent body.

We have never questioned the merits that are in osteopathy, but its usefulness, as we have intimated, is confined to comparatively narrow limits. One great mistake that osteopaths make is where they pretend to cure pneumonia, diphtheria and typhoid fever with the means at their disposal. For them to treat diphtheria without antitoxin, syphilis without mercury or malaria without quinine will never appeal to the medical profession, or even to the ordinary layman. They can accomplish good in many cases, but they pretend to do something that they cannot do. They pretend to cure all forms of disease without medicine. Here is where they act the fraud. No system will do this no matter how intelligently practiced.

When an osteopath gets into a family and becomes the regular family physician because he has benefited a neurasthenic or cured an old stiff rheumatic joint, he assumes, if permitted, the responsibility of treating all forms of disease that this family may be heir to. This he ought not to do. He cannot do so intelligently or with safety with his present knowledge and the means that he has.

If the bill had passed, as proposed, it would have given the osteopaths the right to practice medicine in North Carolina, with all the privileges that the regular medical profession has, except that they would not have been allowed to perform surgical operations. But here was not all the danger. Many of our young medical men of the regular school would have legalized themselves through the Osteopathic Board, if their plan had prevailed. If this little group of Osteopaths have a reasonable amount of politic knowledge they would not have a very high standard if they had an examining board. Their inclinations would have been to have a low standard in order to swell the number of practitioners in the State, and thus gain public sympathy and influence. They would have naturally drawn the greater part of their members from our rejected candidates. It would be just as wise and just as fair for the Laryngologists of the State to request the legislature to give them a separate Examining Board or the Ophthalmologists, or the Hydropaths a separate examining board as it would the Osteopaths. Usually among the specialists of our State we have well educated and well trained men, men who realize that it is essential to be thoroughly trained in all of the branches pertaining to medicine before they take up a specialty. We have good laws and just laws in North Carolina that govern the practice of medicine. No State in the Union has any better. It is fair to the physician and fair to the public. These legal restrictions, from a commercial standpoint, have been much more valuable to the public than they have been to the members of the profession.

We have as many physicians in proportion to the population of the State now as we had twenty years ago. The fees received by them are no larger now than they were then,

yet it takes at least twice the preparation to begin the practice of medicine as it did then. Now a student has to be fairly well educated to begin the practice of medicine, and I might say thoroughly technically educated before he can become a legal practitioner. He is now worth twice as much to the State as a professional man as he was twenty years ago—he is twice as well equipped. Yet he does not, from a financial standpoint, realize any more than he did prior to these legal restrictions, thus the public is the recipient of all the benefits derived from this improved standard that has been built up among medical men.

After thoroughly considering the matter from all its phases we are of the belief that it is wise that this bill received the fate that it did. It might not be amiss for the profession of the State to know that it was mainly through the energetic and intelligent and influential efforts of our secretary, Dr. J. Howell Way, that this bill was defeated.

WHY DO SOUTHERN PHYSICIANS GO NORTH FOR POST-GRADUATE WORK?

Post-graduate instruction in this country is a comparatively recent thing as compared with similar instruction in Europe.

Most men have an idea that it costs so much more to go to Europe and study than to go to one of our larger cities that they do not even take take the trouble to look into the matter.

In regard to this, one might quote the expenses incurred of such a trip. A first-class passage on one of the best boats costs about $75.00, time on the sea one week. If you go to London you can obtain a ticket of the Metropolitan Schools of Medicine for thirty-five dollars which is good for three months and entitles the holder to attend all the clinics in nine of the best hospitals in London, saying nothing of the clinics in some of the special branches one may attend where no fee is charged. Living expenses are about the same or a little less than one pays in any of our larger cities. In Vienna at the Allgaminen Kraunken Haus one can obtain instruction in any special branch of medicine for a goulden an hour, which is forty cents in our money. In fact one can spend six months away from his practice in Europe and not spend over $600.00 for necessities. By this is meant cost of living, traveling and hospital fees.

Now in reference to the men and the instruction. The instructors in Europe impress one as being students of science and not of money. They do not try to impress their students with the idea that "I am monarch of all I survey." Nor do they ever make light of a student's mistake, but seem to realize and appreciate the fact that they too were students once.

The instruction is more practical in Europe and they will only take ten men in a class in gynæcology or internal medicine, so that each member has at least one case to thoroughly examine and form his own ideas before the case is taken up by the instructor who points out the errors. Not only do you have the opportunity of making the examination yourself, but if the patient dies you can see the autopsy, which is compulsory in Vienna. It is the King's orders that all cases dying in the Allgaminen Kraunken Haus shall be examined post-mortem and therefore mistakes are not often buried.

The instruction in Vienna is given in German. This is another argument which would discourage one. Most anyone however can with a month's instruction in hospital German get a good working knowledge of the language. Laying aside these points where the European post-graduate courses of instruction supercede those given in the United States it must be admitted that a man who has received his medical training here is much benefited by a course of instruction in a foreign country, if it did nothing more than broaden him in his profession. Although it may be said that we have in this country as good instructors as they have in Europe it may also be said with as much emphasis that our instructors do not have the time to devote to their students and are too busy looking out for the almighty dollar.

It is said that a man who has studied abroad gains a certain amount of prestige. This may be true, but would not be considered by a man who is a thorough student and interested in his profession from a purely scientific standpoint. The Allgamnin Kraunken Haus of Vienna has about 2500 beds to furnish ample material for every branch of medicine. The instructors devote their entire life to one branch and with the great amount of material and all the appliances at their command make them well fitted to teach in their respective lines.

Besides the medical instruction one learns many things in regard to the customs and ways of the people and has an opportunity to visit and study the various interesting features of the different cities. So that besides time spent at work one can combine this with pleasure, which all tends to make the trip more profitable.

In conclusion we might say that this is not written from the standpoint of protection of home industries, but purely for the interest of the individuals comcerned.

SUGAR IN THE URINE.

All the tests for sugar in the urine with the exception of the phenylhydrozine test depend on the reduction of the oxides of the various metallic salts and in alkaline solution. There are various drugs and other substances which may be present in the urine other than grape sugar, which will reduce these oxides, therefore the safest test is the phenylhydrozine test which gives the yellow sheave-like crystals as seen under the microscope. This test is most delicate detecting one part in ten thousand.

The carbohydrates taken with the food are changed into grape sugar, but there is a greater amount of carbohydrates taken than is necessary for grape sugar alone. This superfluous amount of carbohydrates is changed by the action of the liver into glycogen and fat and is stored up in the liver, in the muscles and in subcutaneous fat. These three places represent the reservoirs of the carbohydrates which for the time being is not necessary. There is normally about 1-10% grape sugar in the blood, and therefore an insufficiency of the liver takes place the grape sugar is accumulated in the blood a hyperglychoria results and consequently the grape sugar is excreted by the kidneys and appears in the urine.

In alimentary glycosuria patients usually have some liver or pancreatic disease, and if you give them 15 grams of grape sugar in a cup of tea two hours after you will find sugar in the urine. Very small amounts of sugar are found in the urine in diseases of the brain and spinal cord.

The mild form of diabetes occurring in middle aged persons and after a diet consisting of only meat, black coffee without sugar, and some alcohol, the sugar entirely disappears from the urine within five or six days. This form occurs in fat individuals often with an history of uric acid diathesis. The prognosis in such cases is good. In these cases the patient is able to eat a small amount of carbohydrates without getting more than ½% sugar in the urine, takes plenty of exercise or massage and for six weeks twice a year drink one to two tumblers of Carlsbad muhlbrum as hot as he can stand before breakfast. (One to two teaspoonfuls of artificial Carlsbad salt will answer same purpose). The dose being regulated by the action of the salts on the bowels. In regard to the diet the list of articles of food and drink allowed by Nothnagel is very complete and gives the patient plenty of variety.

From time to time the patients are allowed to eat some carbohydrates, but every week one day should be fixed for strict diet, by this treatment the grape sugar entirely disappears from the urine even if patient eats some carbohydrates. The severe form of diabetes occurs at all ages. It is often associated with tuberculosis and the individual is always emaciated. The urine is strongly acid and may contain 3% sugar and often acetone after a strict diet for five or six days the urine still contains sugar, even after taking only liquids for 24 hours. In this form the grape sugar is formed from the albumen from the foods and from the bodily albumen. The principle of the treatment in this form is quite different from treatment of the mild form because even if the patient eats only meat his urine still contains sugar. One must try to maintain the bodily weight. If the patient was restricted to a meat diet for any length of time his stomach would soon rebel and the food would not be digested and necessarily the albumen from the body would be oxidized into sugar and an excess of acids would be formed and finally an acid intoxication with diabetic coma would occur. To avoid this danger carbohydrates must be allowed together with fat, even if the amount of grape and sugar remains the same, or becomes increased. From time to time the carbohydrates should be restricted but the moment acetone appears in the urine meat must be stopped and plenty of vegetables and carbohydrates given because the presence of acetone points to a threatening diabetic coma. Do not use Carlsbad treatment in this form of the disease.

In diabetic coma an intervenous injection of normal saline solution will bring the patient out of coma for a few hours, but has no permanent effect.

COLLES FRACTURE.

This probably is the most frequent fracture the general practitioner has to treat and is often the cause of much anxiety. The most common deformity following the fracture is generally known as the silver fork deformity. It occurs most commonly in elderly people and is generally caused by indirect violence. It is often an impacted fracture. In the silver fork deformity the distal end of the ulna is very prominent, the hand is inclined inwards, the wrist joint is stiff and the fingers are limited in their movements owing to the adhesions formed about the tendons. Thus rendering the hand and wrist almost useless. Such results as these in an elderly person, who, by the way, may frequently be seen about the street and in this way exhibiting the very evident deformity, certainly does not add any laurels to the practitioner's work in the community.

In the various text books one finds the anterior and posterior splints, the pistol splint, etc., recommended for the treatment

of the condition and no doubt has given some very satisfactory results in some cases. Usually, however, by applying the above splints for the required time one finds on taking it down that there has by this time adhesions formed among the tendons that is very hard to overcome even by using passive motion for some time. To do away with these adhesions various men in the past have advised reducing the fracture and then putting the arm in a sling and allowing the hand to go free and claim some good results. The plaster paris splint as recommended by Dr. Cole of the Post Graduate Hospital in New York City, however, seems to meet the requirements more satisfactorily than any that have so far been recommended. He uses the dental plaster of paris well dried and powdered. Fill the gauze bandage with this, the bandage being about 2½ inches wide. After reducing the fracture he measures the distance from the elbow joint on the flexor surface to a point in the middle of the palm. Also the distance from the elbow joint to the heads of the metacarpal bones, on the extensor surface. Then moistens the gauze bandage and makes two splints out of this plaster of paris bandage by running it backwards and forwards five or six times between two points measured off on the table corresponding to the distance taken from the measurements given above and then place a layer of thin cotton or flannel on the broken arm and over this place the moist plaster of paris splints, one on the flexor and one on the dorsal side. These splints soon harden and are perfect moulds of the arm and therefore holds the parts in proper position, provided the reduction of the fracture has been complete and held there until the plaster sets. These splints can be removed and replaced any time the same as the old straight anterior and posterior splints and are much lighter. The most important fact in favor of this splint is freedom of movement the patient is allowed in his fingers during the whole time. It is usually necessary to encourage the patient in passive movement of the fingers at first, but this is not necessary after the first week or so. The results in these cases with this form of splint seem to be most satisfactory, you seldom if ever see any stiffness in the fingers and wrist even when you first take down the dressing after the arm has been in the splints for six weeks.

BROADOAKS SANITARIUM.

Dr. Isaac M. Taylor has recently completed an additional wing to his sanitarium providing a commodious dining room and apartments for fourteen more patients, making the capacity of the institution thirty-five. This being designed especially for the permanent care of chronic mental cases of mild type. Broadoaks is situated about three-quarters of a mile from the Morganton Courthouse on a knoll. The grounds are well drained and are about twenty-three acres in all. All the latest improvements for lighting, heating, water, etc., are now installed. The several beautiful and spacious verandas located with exposures for all kinds of weather, and recent improvements make it one of the finest and most homelike sanitarium for this class of cases. Since the opening of this sanitarium which was about three years ago the percentage of recoveries have been very good in all classes of cases.

THE AMERICAN ANTI-TUBERCULOSIS LEAGUE.

The next meeting of the Anti-Tuberculosis League will be held in Atlanta, Ga., April 17–19, 1905.

Governor Terrell has tendered the Hall of the House of Representatives for the use of the league during the meeting. He will deliver an address on the first morning as well as other distinguished men.

The opening session is intended to be a broad one—in an educational sense—and the heads of the largest educational institutions of the United States will be invited to be present.

Reduced rates will be given by all railroads, hotel rates will also be made special for these visitors. Over 1000 delegates representing the leading national and State medical societies have been enrolled.

Review of Southern Medical Literature.

Maryland Medical Journal, January, 1904.

The Midwife Problem and Its Legal Control.—Dr. Guy Steele says that a Maryland statute of 1898 demands that midwives, or those attending labor cases for pay, shall register their names and address with the county health officers, and also provides that cases of childbed fever shall be at once reported to the health officer and that no case of labor shall be attended thereafter until permission from the health officer has been obtained. For violations of either of these clauses penalties of fine and imprisonment are provided.

This surely is as little as could be done in the way of regulation or restriction, and yet one wonders how this much could have slipped into our medical laws and a complete ignoring of every other requirement remain. This small effort may do some good in letting the midwives know that their hurtful potentialities are recognized

by our law-makers, and they are not altogether beyond the reach of the law, as they were for so many years.

At present England, Germany and France require a midwife to pass an examination for a licence and compels them to be registered the same as doctors. Dr. Steele gives a few of his experiences with midwives attending some of his cases which are both interesting and instructive, giving one a true picture of what is going on in this line of work.

In regard to legislative enactment it will be difficult to pass a suitable measure for two reasons. First, such a bill in order to pass must be absolutely devoid of any suspicion of gain to our profession. Second, it will be hard to frame a bill that will improve the situation and still be so simple and practical that its requirements can be met by the class of women who will present themselves as candidates for license. If the future midwives were to be drawn from an even fairly educated class the problem would present few of its present difficulties. For the present and for sometime to come our source of supply must be the negro woman. Not one in ten of the midwives are under 50, and those at this age have had very little education.

He concludes by asking to have the law already passed inforced. Then we should be able to fix a day, say one year later, that the act of the assembly, after which all who propose to begin the practice of midwifery must obtain license by passing an examination. This examination should embrace only the knowledge which is practically indispensable, the details of which be left to a board of examiners. The enforcement of the law should be placed in the hands of the officers of the State Board of Health, violations would first come under the county health officer and then reported to the State Board. A combined board of lecturers should be appointed, one man for each of three counties, and this board set the examination. Each lecturer and examiner should twice a year visit the county-seat and just before each series of lectures an examination should be held covering the ground gone over in the preceding course of lectures. A certificate should be issued to those who pass which shall entitle the holder to attend labor cases with a physician. When the candidate passes the required examination on the second series of lectures she will be entitled to attend labor cases on her own responsibility.

Four Great Anglo-American Medical Discoveries.—Dr. William R. Stokes' introductory address before the faculty and students of the College of Physicians and Surgeons, Baltimore, appears in this issue, with photo of diploma of honorary degree in medicine granted Wm. T. G. Morton the discoverer of ether, by Washington University, also a photo of Morton's lecture cards from Harvard Medical School.

Dr. Stokes gives a most interesting account of the four great Anglo-American medical discoveries and their discoverers, Jenner, Lister, Reed and Morton.

New Orleans Medical and Surgical Journal, January, 1904.

Contract Medical Practice.—Dr. B. A. Colomb regards this as one of the great evils that the young professional man may be easily led into and points out some of the abuses such things may ultimately result in.

Why So Many Eyes Are Lost.—Dr. H. M. Fish says that the uveal tract consisting of the choroid ciliary body and iris is the vascular tunic of the eye, hence the principal source of internal nourishment. The cause of internal eye disease is in a great many cases unknown and, therefore, called idiopathic. That the accessory sinus inflammation causes a passive orbital hyperemia and reported improvement and cure in cases of internal eye disease by treatment of the affected cavity being the first to show the relation of cause and effect. He reports six cases of this condition with good results from syringing out the affected sinus. He concludes that the disease of the accessory sinus, although not mentioned in textbooks, is the cause of many cases of internal eye inflammations and the failure to recognize it is the reason so many eyes are lost.

Report of a Severe Case of Laryngeal Diphtheria Complicated by Intubation and Treated by Large Doses of Antitoxin.—Dr. P. E. Bechet, in this case, gave 18,000 units of diphtheria antitoxin in 48 hours. after which the intubation tube was coughed up with large pieces of the membrane. The results in this case have proved to the writer that diphtheria antitoxin must not be measured by units but by results, a view which is rapidly gaining ground, as proved by the work of McCallum of Boston, A. Lamboin, and others. Also the great superiority of intubation over the old method of tracheotomy seems to have been demonstrated.

The Texas Medical Gazette

Retro-displacements of the Uterus.—Dr. F. D. Thompson classifies three conditions into the acute and chronic. The acute displacements are usually found after labor, while the uterus is large and heavy, and before involution is complete. If the uterus is returned to its normal position under these circumstances it will sometimes remain and give no further trouble. It may be necessary to use lambs wool tampons

two or three weeks when the uterus will remain in place. Then there are cases which become chronic in spite of treatment. In the case of pregnant retroverted uterus abortion often takes place at the third or fourth month. If the uterus is replaced this may be avoided. The condition of adhesions is also mentioned. He advises Alexander's operation in cases where there are no adhesions and the uterus can be returned perfectly to its normal position. When the uterus is bound down by adhesions do a laparatomy. He considers it useless to waste time and trifle with these cases by using tampons, pessaries, local applications, etc. It is far better to look carefully over your case and see what particular operation is suited to the individual case and do that which is necessary and promises relief.

Why Railroads and Similar Corporations Lose Their Damage Suits—A Criticism of Prevailing Methods.—John Penton, M. D., Kansas City.

Southern Practitioner.

Fractures of the Spine.—W. H. Bryan, M. D., discusses the diagnoses as to seat of the lesion and the symptoms of fracture and fracture dislocation. Almost invariably text-books and current literature teach that in these cases there are two methods, one the palliative and await the death of the patient, in another never open the skin and attempt to relieve the condition by an operation, for it is claimed that the dangers produced by operative procedures and the possibility of complications resulting from it so increase the danger that an operation is worse than valueless. The chief danger of going into the spinal column is infection, and yet no man would use that as an argument at the present day against laparotomy. It is certainly no more dangerous to enter the spinal cord under asepsis than it is to enter the abdomen under similar conditions. The procedure recommended in this paper in these cases, provided the surgeon does not know that inevitable death will follow, regardless of his treatment, is to cut down over the injured region, remove the fragments if they can be removed and give the patient a chance to escape degenerative changes of the cord that must follow the pressure that continues to weigh upon it; or again it is the surgeon's duty if there is the remotest doubt to cut down on the spinal cord purely for diagnostic purposes. Then if he finds a condition that is capable of relief he has done the patient no harm, for the wound will heal kindly if the ordinary teachings of surgical technique have been followed.

Eczema—Dr. J. M. King considers first the pathological changes found in the diseased parts with their clinical aspect; second, the causes of these changes or of eczema, and third, the principles governing the treatment of the different stages. It is not the nature of true eczema to be pustular and ulcerative, but these conditions occur through infection, so in the majority of cases it is essential to apply some mild antiseptic in conjunction with the other remedies.

Texas Medical Journal, January, 1905.

Some Remarks on the Operation for Hernia.—Dr. T. J. Bennett points out that herniatomy has never been popular in Texas. This he is unable to explain for the perfection to which the Bassini operation and its modification has been brought to it seems as safe an operation as any in the category of surgery. The young or the old are scarcely barred from the benefits of the operation. In the very young, however, many cures result from the employment of properly fitting trusses, and the very old hardly see proper to undergo any kind of an operation unless they are bedridden from an unrestrained hernia.

The essential features of the operation are fully given. The smallest percentages of failures are due to sepsis, rough manipulation, imperfect coaptation, blood clots, too tight suturing, improper dressing after operation, especially too loose dressings not giving support to the parts to overcome the pressure from vomiting, coughing, etc. Surgeons differ in their advice in regard to wearing truss after operation, the general opinion though is not to put on trusses, but support with tight-fitting bandage for awhile.

Moccasin Bite Treated With Adrenalin Chloride.—Dr. R. Menger describes his treatment of a case with two fang wounds on the dorsum of the foot. The patient arriving at his office two hours after the accident. The injection of 25 drops of permanganate of potash sol. (2 gr. to ʒi) into the fang wounds was followed by injecting 20 drops of adrenalin chloride sol. (1-1000) near the fang wounds after incising the fang wounds to allow the oozing of blood and serum. The patient had placed a ligature around the leg soon after the accident. The ligature was removed and foot dressed with permanganate of potash sol. Adrenalin is not alone a powerful vasomotor constrictor but also a heart stimulant, and after injecting near the fang wounds it retards the circulation in the neighborhood of tissues surrounding the fang wounds and thereby lessens the absorption of the reptiles venom into the general circulation, provided of course, that it be used in time and before the ligature has been removed.

The American Practitioner and News.

A Few Thoughts on Medical Life Insurance.—Dr. W. Ed. Grant points out in this paper among other things how much the medical examiner for a life insurance company can accomplish in detecting beginning disease in an applicant by simple but painstaking observation, and especially by a careful inspection.

Acute Anterior Poliomyelitis.–Dr. Philip F. Barbour after reviewing onset and symptoms of this disease advises massage and electricity to prevent atrophy. Also hypodermic injections of strychnine nitrate in large and increasing directly into the muscles involved often arrest degeneration and may be distinctly helpful. But it must be pushed to full physiological tolerance. Sea salt bathing of the affected limb, hot oil rubs, all means to improve circulation, not only in the paralyzed muscles, but in the spinal cord. All forms of braces and supports should be discouraged unless absolutely necessary, as they increase the weight which the paralyzed limb has to carry, and if they are not properly applied and should press upon some of the bony prominences in the paralyzed limb the results will be disastrous, for the nutrition of the skin being poor calosites or ulcers will easily occur and will only with great difficulty be healed.

Memphis Medical Monthly,

The Significance of Tube Casts in the Urine.—Dr. Wm. Britt Burns says that tube casts are clinically the most important morphotic elements of the urine. There are the organized and unorganized varieties. The former are derived from the blood and renal tubules, the latter from the crystaline solids of the urine. The history of the discovery of cases dates back to 1837, The three theories as to the formation and origin of tube casts are (1) that there is a leakage of coagulable material into the urineferous tubules from the blood, either from increased blood pressure or some lack in the normal integrity of tube walls. (2) That the epithelium of the tubules is morbidly irritated to the point of secreting a substance which solidifies forming moulds of the tubes. (3) That the lining epithelium of the tubules exfoliates and melts down by a degeneration process; this material coagulates and forms moulds of the tubes. These subsequently appear in the urine as casts. The first theory, according to the authors ideas is correct. The hyaline cast is probably the base of all casts; a granular cast is a hyaline cast plus granular matter on its surface or entangled in its matrix; the same may be said of the other forms, the waxy is the degenerate hyaline cast signifying and indicating an advanced kidney lesion. The author has been surprised since using an electric centrifuge many times to find casts where from an ordinary look at the patient, one's attention would not have been directed to the kidney. Granular casts are of hyaline base in which granules are imbedded; these granules may be coarse or fine. This granular material is the result of degeneration of the renal epithelium, and apparently at times from both red and white blood corpuscles. Finally granular casts are found in all diseases of the kidney. Fatty casts are hyaline and granular casts covered with fat drops. They indicate fatty degeneration also found in fatty stage of acute nephritis.

Pus casts are either pus cells or leucocytes attached to the usual tubular coagulate. Bacterial casts are true casts covered with bacteria; they are very like the brown granular casts, and it is almost impossible to distinguish between them. False casts or cylindroids same as hyaline, with the exception that the tubules are not entirely filled, they are then flat and ribbon like. Some of these cylindroids are probably derived from nucleo albumin rather than serum albumin, as is the case with hyaline casts.

Bartells says that a patient may present albumin and no casts, and in a few days or a few weeks show no albumin, but a few or abundance, of casts, and at a still later period show neither albumin or casts.

Some Medical Deductions.—Dr. G. G. Buford reports two cases of rather severe melancholia which were immediately relieved after a thorough purging with castor oil. From the history symptoms and results of the treatment, these cases seem to be clear cases of profound autointoxication, the one from the toxins generated from impacted foeces and the other from the by-products in intestinal indigestion.

Book Notices.

A Text-Book of Legal Medicine. By Frank Winthrop Draper, A.M., M.D., Professor of Legal Medicine in Harvard University; Medical Examiner for the County of Suffolk, Massachusetts. Octavo volume of 573 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1905. Cloth, $4.00 net.

The subject of Legal Medicine is one of great importance, especially to the general practitioner, for it is to him that calls to attend cases which may prove to be medico-legal in character most frequently come. Dr. Draper has written his work both for the general practitioner and for the medical

student. He has not only cited illustrative cases from standard treatises on forensic medicine, but these he has supplemented with details from his own exceptionally full experience—an experience gained during his service as Medical Examiner for the City of Boston for the past twenty-six years. During this time his investigations have comprised nearly eight thousand deaths under a suspicion of violence. The author's long teaching career has enabled him to state facts and detail procedures with a clearness rarely met in a work on Legal Medicine. Withal, we think Dr. Draper's book is unusually satisfactory; it is more—it surpasses our expectations.

An Introduction to Pharmacognosy. By Smith Ely Jelliffe, Ph.D., M.D., Professor of Pharmacognosy and Instructor in Materia Medica and Therapeutics in the Columbia University (College of Physicians and Surgeons) New York. Octavo volume of 265 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $2.50 net.

This introduction to pharmacognosy is the first work published in this country dealing with the special individual anatomic characters of the different drugs, and it will be found of great service in enabling the student to recognize any drug in its crude condition. Dr. Jelliffe has laid special emphasis on the microscopic characteristics of drugs, not, however, neglecting the macroscopic appearances. He has also given considerable attention to the description of drug powders.

In the selection of the drugs studied in detail the author has shown great care, taking those which are most typical of the general drug structures, amply equipping the student of pharmacy to pursue individual research of a practical nature. The source of each drug is given, then the microscopic appearances, the chemistry, and the adulterations—an all-important factor in practical pharmacy.

Bacteriology and Surgical Technic for Nurses. By Emily M. A. Stoney, Superintendent of the Training School for Nurses, St. Anthony's Hospital, Rock Island, Ill. Second Edition, Thoroughly Revised and Much Enlarged by Frederic R. Griffith, M. D., Surgeon, Fellow of the New York Academy of Medicine. 12mo volume of 278 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1905. Cloth, $1.50 net.

The revision for the second edition of this practical work has been most thorough and extensive, the book having been increased in size by the addition of over 80 pages and many cuts. Dr. Frederic R. Griffith, to whom the work of revision was intrusted, has wisely added several chapters of unquestionable importance: namely, bandaging and dressing; obstetric nursing, care of infants, etc.; hygiene and personal conduct of the nurse, etc. Nurses will find the glossary at the back of much value. As a whole we think it a compact, useful book, pregnant with just the information that nurses most and constantly need.

Atlas and Epitome of Operative Ophthalmology. By Dr. O. Haab, of Zurich, Edited, with additions, by George E. de Schweinitz, M. D., Professor of Ophthalmology in the University of Pennsylvania. With 30 colored lithographic plate, 154 text-cuts, and 377 pages of text. Philadelphia, New York, London: W. B. Saunders & Company, 1905. Cloth, $3.50 net.

This new volume forms an admirable conclusion of the series of atlases on the eye prepared by Professor Haab. Beginning with a thorough discussion of the proper construction of operation-rooms, narcosis, sterilization as applied to ophthalmic instruments, and disinfection, ophthalmic operations are described with all the fidelity and clearness that thirty years' conscientious practice in eye work naturally brings. The colored illustrations exhibit the same perfection of art and accurateness of detail which we have found only in this invaluable series of atlases. We note that the able editor, Dr. de Schweinitz, has rendered the volume much more valuable by his many additions throughout the text. Any one interested in eye work will find this book of more value than any other volume recently published.

Diseases of the Nervous System. A Text-Book for Students and Practitioners of Medicine. By H. Oppenheim, M. D., Professor at the University of Berlin. Translated and edited by Edward E. Mayer, A.M., M.D., Pittsburg, Pa. Second American Edition, Revised and Enlarged. Philadelphia and London: J. B. Lippincott Company, 1904. Price, $5.00 net.

In the preparation of this, the second American edition, the opportunity has been utilized to revise the work completely and to incorporate the advances made in neurology during the last few years. The new matter introduced by Prof. Oppenheim in his third German edition has been translated and inserted, and, in addition, the translator and editor has added the results of research and investigation in this field since the revision of the German original.

He has used the prerogative of an editor to give proper recognition to the work of English and American neurologists. Attention should be directed to the fact that Prof. Oppenheim has incorporated in this book observations which he has never published elsewhere, and that this work is, therefore, not only a judicious review of neurology, but also an original source of information. The new edition represents an increase in size of 54 pages, and the addition of a considerable number of illustrations over the first edition.

Judging from the favorable recognition given this book when published in its first editions, this edition with its additions and improvements will meet the success it deserves.

Whosoever Shall Offend. By F. Marion Crawford. The MacMillan Company. $1.50.

In this his latest novel Mr. Crawford has gone once more to his favorite ground in Italy and woven a tale of love, devotion, murder, jealousy and sacrifice, with some elements of the detective story. A very ordinary social problem plays an essential part in the narrative, as does an extraordinary but by no means impossible villain. That it is well told, with many bits of incidental philosophy, goes without saying; but the reader can hardly help regretting that the plot is such that the dramatic proprieties demand that the real heroine shall die in order that the nominal heroine may be happily married. His sympathy necessarily goes with the erring one rather than with the gently nurtured.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicines, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and Other Topics of Interest to Students and Practitioners by Leading Members of the Medical Profession Throughout the World. Edited by A. O. J. Kelly, A.M., M.D., Philadelphia, U. S. A., with the collaboration of Wm. Osler, M. D., Baltimore; John H. Musser, M. D., Philadelphia; Jas. Stewart, M. D., Montreal; J. B. Murphy, M.D., Chicago; A. McPherson, M. D., Toronto; Thos. M. Rotch, M.D., Boston; John G. Clark, M. D., Philadelphia; James J. Walsh, M. D., New York; J. W. Ballantine, M. D., Edinburgh; John Harold, M. D., London; Edmund Landolt, M. D., Paris; and Richard Kretz, M. D., Vienna. With Regular Correspondence in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume IV. Fourteenth Series. 1905. Philadelphia and London: J. B. Lippincott Co.

The volume now before us is one of the most remarkable series in many years. We understand that it has had a larger sale than any of its predecessors. The four volumes combined have 1234 pages, 89 articles, 294 illustrations, 26 of which are in colors, 3 complete monographs, "The Progress of Medicine," "Diseases of Warm Climates," and "Syphilis," 16 articles on treatment, 17 on medicine, 21 on surgery, 6 on medical gynaecology, 3 on neurology, while pediatrics, rhinology, pathology, etc., are all thoroughly covered by a total of 95 writers embracing the foremost men in the practice of medicine throughout the world. The illustrations average 73 to the volume, or one to every 4 pages. The colored illustrations average 6½ to the volume. The price of each volume is $2.00. This gives six colored illustrations, 73 black and white illustrations, and 300 pages of the latest and best medical literature that can be gathered up by any editorial corps for this small price. Among the contributors to this volume that is now before us, I notice the names of Brower, Cohen and Duckworth. The association of these names with any book ought to be sufficient guarantee of its merits.

Eye, Ear, Nose and Throat Nursing. By A. Edward Davis, A. M., M. D., Professor of Diseases of the Eye in the New York Post-Graduate Medical School and Hospital, and Beaman Douglass, M. D., Professor of Diseases of the Nose and Throat in the New York Post-Graduate Medical School and Hospital. With 32 illustrations. Philadelphia: F. A. Davis & Co., Publishers, 1905. Price $1.25.

While this book that Drs. Davis and Douglass have written was primarily for the use of nurses, students and general practitioners will, we believe, find it a great assistance to them also.

It is not a treatise in any sense of the word, but is meant simply as a guide for the intelligent care and nursing of the various diseases of the eye, ear, nose and throat, and to instruct the nurse as to her exact duties during and following operations upon these organs.

Antisepsis and asepsis have received particular attention, since, above all, the nurse should know the all importance of surgical cleanliness. The methods of preparing the numerous antiseptic and sterile solutions and dressings have been given in detail, while the various remedies required in the treatment and nursing of these special or-

gans, their preparation, sterilization, and exact method of application have been considered fully and most carefully. The authors have endeavored to show the nurse how to do things correctly, because in treating such delicate organs as the eye, ear, nose, and throat, the good results obtained depend fully as much upon the intelligent and painstaking care of the nurse as upon the work of the physician himself.

A brief outline of the anatomy and physiology of the eye, ear, nose, and throat has been given, in order that the nurse might better understand the subjects under consideration.

A Practical Treatise on Nervous Exhaustion (Neurasthenia) Its Symptoms, Nature, Sequences, Treatment. By George M. Beard, A. M., M. D., Fellow of the New York Academy of Medicine; of the New York Academy of Science; Vice-President of the American Academy of Medicine; Member of the American Neurological Association; of the American Medical Association; The New York Neurological Society, Etc. Edited, with notes and additions by A. D. Rockwell, A. M., M. D., Neurologist and Electro-Therapeutist to the Flushing Hospital; Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital; Fellow of the New York Academy; Member of the American Neurological Association; of the New York Neurological Society, etc. Fifth Edition, Enlarged. New York: E. B. Treat & Co., 241–243 West 23rd Street. Price $2.00.

In this country nervous exhaustion or neurasthenia is more common than any other form of nervous disease. With the various neuroses to which it is allied, and to which it leads, it constitutes a family of functional disorders that are of comparatively recent development, and that abound especially in the northern and eastern part of this country. In spite of its frequency and importance, it is, although recognized in a vague way among the people and the profession under such terms as general debility, nervous prostration, nervous debility, nervous asthenia, spinal weakness, and more accurately by some of its special symptoms and accompaniments, as spinal irritation, nervous dyspepsia, oxaluria, cerebral and spinal anæmia and hyperœmia, is even now but just beginning to find recognition in the literature of nervous diseases. It is at once the most frequent the most interesting and most neglected nervous disease of modern times.

Among specialists and general practitioners alike, there has been, on this whole subject, a fearful and wondrous confusion of ideas. The present work is the result of experience and study and is the work of a very prominent specialist in this line. He has done more to cause neurasthenia to be classed as a disease than any other man. Very few of the standard works on nervous diseases in any language have any chapter whatever on neurasthenia. This shows that the subject in a great measure has been neglected. The work seems to be the most complete of the kind that we have ever examined.

Transactions of the American Surgical Association. Volume the Twenty-Second. Edited by Richard H. Harte, M. D., Recorder of the Association. Printed for Association. For sale by William J. Dornan, Philadelphia, 1904.

The present volume of proceedings of this surgical association is equal, if not superior, to any of the former volumes. It contains 400 pages and is printed on a very fine grade of paper and has a great many fine illustrations. It is beautifully bound and fully indexed. The president is Dr. George Ben Johnson of Virginia, and the editor is Dr. Richard H. Harte.

Practical Pediatrics. A Manual of the Medical and Surgical Diseases of Infancy and Childhood. By Dr. E. Graetzer, Editor of the Centralblatt fur Kinderheilkunde and the Excerpta Medicea. Authorized Translation, with numerous additions and Notes. By Herman B. Sheffield, M.D., Instructor in Diseases of Children and Attending Pediatrist (O. P. D.) New York Post-Graduate Medical School and Hospital; Visiting Pediatrist to the Metropolitan Hospital and Dispensary, etc. Philadelphia: F. A. Davis Company, Publishers, 1905. Price $3.00 net.

This volume is the most complete treatise on the subject that has ever been written. It covers the field thoroughly. It deals with a subject that is a most important one. One that is not as well understood by the general practitioner as it ought to be. Its chapter on infant feeding alone, if carefully read, will be worth to the practicing physician the price for the entire volume. Another chapter that brings out as many practical and useful facts as any other is that on diseases of the eye in the newly-born. This chapter is especially well written. I take great pleasure in recommending the book.

Transactions of the New Hampshire Medical Society at the One Hundred and Thirteenth Anniversary, held at Concord, May 19 and 20, 1904. Concord, N. H.: The Rumford Press, 1904.

We are always glad to receive the trans-

actions of this medical society. It is one of the oldest medical organizations in the country. It has been in existence for one hundred and thirteen years. The volume this year contains 319 pages. It is well indexed and beautifully illustrated. Many of the illustrations are portraits of the prominent members who have died during the last year.

Transactions of the Medical Association of the State of Alabama. (The State Board of Health) Organized 1837–Meeting of 1904. Mobile, April 19–22: Brown Printing Co., Printer and Binder, Montgomery, Ala. 1904.

The transactions of this medical society come to us this year in its usual attractive form, substantially and beautifully bound with a great many fine illustrations. The book contains 580 pages and is well indexed. Many of the papers that are incorporated in this volume are of a very high order and will compare favorably with papers read before any society in this country.

Pneumonia and Pneumococcus Infections. By Robert B. Preble, A. B., M. D., Professor of Medicine Northwestern University. Illustrated. Chicago: Cloyd J. Head & Co., 40 Dearborn Street, 1905. Price $1.00.

This book of Dr. Preble's is the only one ever published, so far as is known to the writer, that deals entirely with pneumonia. It is a complete treatise on pneumonia and all of its complications. One hundred and ninety pages of the book are devoted to the pathology and symptoms of the disease, and only twenty pages are devoted to the treatment. He takes up the treatment in a very systematic way, under the heads of fever, pain, cough, dyspnoea, cardiac failure, the nervous system, albuminuria, etc. His discussion of these various symptoms is brief and to the point. The book might have been a little more interesting if the author had drawn more from his personal experience and less from such systems of medicine like Nothnagel.

The book is substantially bound and contains 210 pages. It is a book that every general practitioner ought to be interested in.

Literary Notices.

Lippincott's Magazine sends New Year's greetings to its readers through pages filled with liveliness and cheer.

The novelette by Julia Magruder bears the stamp of distinct originality in the way it deals with a very modern situation. Its title, "The Thousandth Woman," well describes a wife, Hester Denison, who holds herself perfectly in hand when her husband tells her simply and plainly that the affection which he has given her for the past ten years has evaporated. Moreover, he goes on to say that she is supplanted in his heart by a young and pretty girl, who is spending a fortnight with their minister's family. They discuss the matter quietly—if a bit tensely on Hester's side—and she invites the girl to visit her, and then she actually chaperones her own husband, allowing him to see much of the object of his adoration without the chance of scandal. Such heroic medicine is bound to kill or cure, and Hester Denison is a wise woman. But Gordon's lapse brings its own punishment, and it all makes a story of absorbing interest.

Rex E. Beach writes the breeziest sort of Western tales. "Regressive Vengeance" is a jolly example of his best style. "The Way of Love," by Paul Laurence Dunbar, is a sweet episode of love in an Ohio village. Seumas MacManus tells a humorous story of "The Cronaraidh Ghost." "Lide Ann Potter's Wedding" is by Grace McElroy Iurs, an unusual tale of a girl who arranges to be married in the cemetery to satisfy her invalid sister's love of romance. Alfred Stoddart contributes a first-rate horse story called "Satterlee's Deal." With education in the Philippines so much in the foreground, the tale by Marvin Dana, entitled "Cargo on the Venus," carries a special point. Leslie W. Quirk's little sketch, "An Amateur Performance," is an amusing instance of man's egotism.

If any magazine in the world can be characterized as up-to-date, it's the American Monthly Review of Reviews. Take the March number, for example: The frontispiece is a portrait of the murdered Grand Duke Sergius of Russia. The principal contributed article is a graphic account of the most recent developments in Russia, entitled "The Doom of the Russian Autocracy," by Dr. E. J. Dillon, who wrote from St. Petersburg several days after the tragic events of Sunday, January 22, of which he was an eye-witness. Another important contribution to this month's Review is Prof. John Bassett Moore's exhaustive survey of the relations between the United States and Santo Domingo, which are just now under discussion in the Senate. Apropos of the inauguration on March 4, there are three articles on phases of the Roosevelt *regime* in Washington,—"A Civic Awakening at the National Capital," by Max West; "The Civil Service Under Roosevelt," by William B. Shaw; and "The Post Office: Its Facts and Its Possibilities," by R. R. Bowker. Mr. Walter

Wellman's interesting story of "The Rise of La Follette" will attract wide attention, as will also Mr. Charles B. Cheney's rapid review of "Political Movements in the Northwest" (including especially those with which Governor La Follette has been identified). Mr. W. T. Stead contributes a characteristic study of the great revival in Wales, Mr. Alfred Gradenwitz describes some recent types of lifeboats, and Mr. O. Leonard tells "What the People Read in the Balkans." In the editorial department, "The Progress of the World," the President's relations with the Senate, the railroad-rate legislation, and other matters before Congress are fully discussed, while foreign affairs are treated with the Review's customary thoroughness.

A few features stand out prominently in the Review of Reviews table of contents for February: the editorial treatment of the Russian situation up to and including the outbreak of January 22 at St. Petersburg; the review of the Russo-Japanese war, apropos of the fall of Port Arthur and the close of a full year of hostilities; the discussion of Panama Canal problems by Minister John Barrett; the article on "Theodore Thomas and the Development of American Music," by W. J. Henderson; "Street Railway Fares in the United States," by Edward Dana Durand; "The Industrial and Commercial Outlook in Venezuela," by G. M. L. Brown; "Baltimore, One Year After the Fire," by Day Allen Willey; "Manhattan Bridge: A Lesson in Municipal Æsthetics," by G. W. Harris; "The Japanese Art of Jiu-Jitsu," by H. Irving Hancock; "What Justifies Intervention in War?" by Amos S. Hershey; "General Stoessel: Russian Defender of Port Arthur;" and "What the People Read in Scandinavia." There is the usual comment on topics of the day in "The Progress of the World," and the department of "Leading Articles of the Month."

Abstracts of the Leading Articles of the Month.

Tubercular Laryngitis.

Harmer (London Clinical Journal) gives as the most usual early symptom of laryngeal tuberculosis a noticeable loss of voice or lack of control in tone and pitch.

This may be due to fixation of one of the cords or to swelling of the mucous membrane of the part. Paralysis of a vocal cord is more common on the right side due to the intimate relation of the right recurrent laryngeal nerve to the pleura on that side. Thickening of this pleura is therefore more likely to involve the nerve. But aphonia and changes in the larynx are not interdependent.

Cough is a marked symptom invariably, but hemorrhage is uncommon except in sputum from the lungs.

Pain may or may not be present and is occasionally intense. When ulceration is present, especially if the epiglottis suffers, pain is present and is increased by swallowing, often more so by fluids than by solids. As a rule the pain is not so distressing as might be expected. Dyspnea is seen only in advanced cases. The first noticeable *sign* is pallor of the mucosa, especially that covering the epiglottis. Very often it is patchy in distribution and a dull red color may be seen on the arytenoids or interarytenoid span.

Ulcers can often be seen; they are small circular, superficial spots at first, tending to coalesce into irregular patches.

The arytenoid, epiglottis, cords and the tissues joining these structures are the common sites of ulceration. Around the ulcers granulations form and when the infiltration is excessive definite tumors result. The lymphatic glands in the neck are rarely involved. To the naked eye tubercles are seldom in evidence and miliary tuberculosis, so-called, must be rare.

He insists that absolute rest is all-important. Cough is corrected by suitable drugs —sprays of cocain, menthol, tincture of benzoin, etc.

Lactic acid, so much used when ulceration occurs, had better be dispensed with, and the various methods of curettage of the larynx should be attempted only by an expert.

The best method of treatment is that which recognizes the disease as only part of the general tuberculous infection and aims at the best treatment for the accompanying phthisis.

Leprolin in Leprosy.

Rost, in the Indian Medical Gazette, gives the treatment of leprosy by injections of leprolin. About 120 cases are being treated in Burma. Up to date 14 cases have been discharged as cured at Rangoon. Of 56 cases being treated by Rost 20 have so much improved that they may be said to be almost cured. In every case there has been marked improvement. The order of improvement is usually, first, a return of perspiration in a part previously dry, and then a return of sensation. This return of sensation may be only transient or it may be permanent. But ultimately it always returns on continuing the treatment. Second, there is a gain of strength and loosening of the contractions of the fingers and toes. Cases which have had very severe deformity and loss of power through contraction

have completely regained their power and lost the deformity. Ulceration may give way to healing at once. In some cases thickened, hard epidermis has to be cut away before the ulcer heals. Nodules are usually slow to disappear. The color of the skin returns slowly. The pains in the limbs generally vanish early. The mental condition improves remarkably and with this the physiognomy improves. Local reactions after injection vary very much. He has given over 1,000 injections, and in no case was there any bad results nor was the disease enhanced thereby. In nearly all the cases the improvement has been obvious; in a few it is rapid, but in the majority the improvement has been slow, but steadily maintained. In some cases he has given as many as sixteen injections, and some cases did not show any sign of improvement until after the sixth injection. The difficulty in making a leprolin of constant strength makes it imperative to increase the dose if it is not found to cause a reactionary fever of over 100 F. The interval between the injections has been restricted to ten days, as some few days seem necessary to allow the patient to recover after the fever, besides which a too rapid recovery must not be expected in a disease which is so remarkably chronic. Evidently the action of leprolin is an antitoxic one and not an autoantitoxic one.

The Influence of Sodium Chloride Upon Gastric Digestion.

Bonniger (Muenchener Med. Wochenschr.) says that common salt influences gastric digestion has long been known. At first the belief was general that salt increased the acidity of gastric juice, but of late a considerable number of writers have shown the reverse to be the case. There has, however, been much diversity of opinion as to how this diminution of acidity took place. Thus Reichmann believes that it is chiefly due to transudation, whereas Schuele holds that the salt directly affects the secreting cells.

To clear up this question he observed the behavior of the gastric juice secreted by a dog with a gastric fistula, according to Pawlow. For the details of the findings the reader must be referred to the original article. In brief, it may be said that the result of the administration of salt was a very marked diminution of the gastric secretion with a corresponding diminution of the HCl secreted. Similar results were obtained with a healthy man—marked subacidity without increase in the total amount of gastric juice. These results disprove the theory of Reichmann, that the subacidity following the administration of common salt is due merely to a dilution of the gastric juice by means of transudation. A priori then common salt would seem to be indicated in the treatment of hyperacidity. Whether the ill effects of large doses of salt—interference with gastric motility and with proteid digestion—suffice to counterbalance its good effects in this disease can only be settled by clinical observation.

A Seventeen-Year Sleep.

Herbst (Berliner klinische Wochenschrift) describes the case of Gesine Meyer, forty-four years of age, who has slept for seventeen years. In the six years preceding the sleep she was well, but before passing into this sleep complained of a severe headache. Prior to the prolonged sleep she would feel drowsy, and would occasionally sleep for a whole day or a half day. In January, 1886, the sleep became permanent. During this long period she took nourishment and fluids. When she was fed she would be raised to a sitting posture, and she could only take liquids or solids that had been reduced to small particles. When thirsty she would smack her lips and become restless; this would continue until the fluid was given. During the sleep she frequently suffered from colds, and once had influenza, during which illness she could not take food, and once she vomited. When the bowels moved she would groan, in this way attracting attention, so that on the whole she was not difficult to care for. The eyes were always closed, and motion was not impaired; she would turn from side to side, move the legs and arms, presenting the usual appearance of one in normal sleep.

The termination of this long sleep was sudden. One morning she called her sister, and said she had only slept one night. Was surprised that her brother did not wear his uniform, he having been a soldier at the time her sleep began. She said her head was clear, which led the family to believe that the sleep would not recur. She remembered everything that had occurred up to the time of falling asleep seventeen years before. During the sleep she gained in weight. To the question if she dreamed during her long sleep she answered, "No." Speaking was at first difficult, as was walking.

Poisoning Produced by Thirty Grains of Salicylate of Sodium.

Jones, in the Glasgow Medical Journal, says: The diagnosis made was lumbago with sciatica. The treatment consisted of an external application of chloroform liniment, and the internal administration of thirty-grain doses of salicylate of sodium in a tumbler of water.

In about three hours after his first visit he again received an urgent summons, and found that within a compara-

tively short time after taking the first powder and applying the liniment she spoke favorably of her feelings, and remarked that she felt quite strong, and had only a slight sensation of pain. Shortly afterward she complained of a feeling of swelling in the abdomen, which quickly became distended, producing much discomfort and oppression. She had also a considerable amount of pain in the abdomen and back; a singing noise in the head, as if it would burst; and a hissing noise in the ears, like the blowing off of steam. Then followed an outburst of great excitement, the patient expressing herself in exaggerated and strong language, and becoming very violent.

When seen in about an hour after this outburst she complained of a great load or weight about her heart, "as if dragging," and a sensation of sickness. She had a general feeling of prostration, and expressed the belief that she was dying. She was absolutely free from pain, but complained of thirst and of a ringing noise in the head. The heart was regular, the pulse full and bounding. 100 per minute; respiration free and regular; temperature normal; the tongue white.

Previous to this the patient had passed a great quantity of wind, and had also evacuated much urine. During the hour the writer remained at her side she was rather restless, tossing her head from side to side, and throwing her arms about. She remained in this state for about four hours, and then dropped over to sleep. When seen the following day she was in her usual health, and complained only of the pain in her back and leg.

The question arises whether these symptoms were those of salicylism, or a case of salicylism with hysteria. If it were salicylism, then a single dose of 30 grains, well diluted, produced it, as the patient had not had any medicine previously. This dose though comparatively large, is by no means so large as the author has prescribed without bad effect.

If the question of hysteria be taken into account—and in this patient something of the kind is suspected—one would require to prescribe cautiously in such cases. Moreover, the menses were present at the time, and this circumstance suggest that it might be well to make inquiries about this function before prescribing in such cases.

A sample of the salicylate of sodium prescribed was submitted for analysis to Professor Stockman, who kindly interested himself in the matter.

Freezing-Point of Blood in Renal Disease

Loeb and Adrian (Berlin Klin. Wochenschrift) say that according to the accepted laws of cryoscopy, a high molecular concentration of the blood, as expressed by a low freezing-point, indicates disease of both kidneys. As bearing on this question, the authors cite the history of a case of carcinoma of left kidney, in which the freezing-point of the blood was 0.635, and it was therefore assumed that the right kidney was also diseased. The patient subsequently died, and an autopsy showed the right kidney to be perfectly healthy on gross inspection and histological examination of sections. They believe that the rapid growth of the tumor of the left kidney did not allow the right kidney sufficient time in which to affect complete compensation. The question whether or not increased molecular concentration of the blood is a sign of disease of both kidneys, is obviously an important one, in determining the indications for operation, though in the given case operation would probably have been useless from the outset.

Soft Fibroma of the Larynx and Neck, Removed by External Operation Without Opening the Cavity of the Larynx.

Semon (British Medical Journal) mentions this unusual case. The patient was a married woman aged 40 years. He first saw her in 1898. Up to 1888 she had enjoyed good health, except that she had sometimes suffered from slight "spasms" in the throat. These seem to have preceded all objective phenomena related to the throat trouble. In 1888 she first observed a swelling in the left submaxillary region. This gradually grew, till in 1898 it was as large as an average walnut. At first it produced no discomfort, not causing any difficulty in breathing or any disturbance in the voice. In the spring and fall it used to swell, but always returned to its previous size. Little by little it became tender on pressure, and the patient's breath became permanently short. The "spasms" increased in severity. She consulted several physicians, and attempts were made to remove the growth, but without success. Finally, on account of difficulty in breathing, tracheotomy had to be performed. This gave great relief. Before this operation the patient had grown very thin, but after it was performed her general health improved. Shortly before the writer saw her the external swelling had increased in size, and there was a great deal of shooting pain in the throat, extending to the jaws and to both ears. Examination showed the external tumor to be tender to the touch, and any pressure on it, unless extremely gentle, caused immediate retching and coughing. It was not adherent to the skin and was somewhat mobile in various directions, although it seemed to be fixed to

something very low down. The neighboring glands were not enlarged. Laryngoscopic examination revealed a surprising state of affairs. Although the voice was almost normal, there was present an enormous tumefaction of the left half of the larynx, which in front extended to nearly the free border of the epiglottis, and behind to the left arytenoid cartilage. All the corresponding parts of the larynx within that region seemed to have been absorbed into this smooth, round tumefaction, which was covered by apparently normal but very pale mucous membrane. Not much more than the free border of the epiglottis could be seen, and it was so twisted that the epiglottis looked towards the right. Neither of the vocal cords could be seen, and it could be concluded from the integrity of the voice that the left vocal cord itself could not be involved in the process. The right arytenoid cartilage moved well. The left half of the larynx was almost immovable. On touching the tumefaction with a probe there was a feeling of elastic resistance similar to that experienced on pressing upon the external tumor. The patient refused operation until the early part of 1904, when her symptoms had become more severe. There was running from the eyes, inflammation of the conjunctiva, and very much increased in size, although the external one was not much larger. The operator cut down upon the external tumor, dissected it out from its vicinity, and found at its distal end a thin, partly thread-like pedicle, which he followed up as far as possible. The tumor was extremely friable and broke into several pieces, which were removed without difficulty. The internal tumor was shelled out by means of the finger. The tracheal tube, which the patient had worn for nearly 13 years, was removed. The patient made a complete recovery. The structure of the tumor proved to be fairly uniform and typical of a soft fibroma. It was edematous in character. This explained the fact that the tumor varied in size from time to time. Whether the growth began in the larynx or in the tissues of the neck has not been determined. From this case it is clear that pure fibromata may simultaneously involve the larynx and the neighboring parts of the neck. The close proximity of the growth to the superior laryngeal nerve explains the coughing and retching. The epiphora and salivation were probably due to the irritation of the sympathetic.

Onanism in Infants and Young Children.

Trischitta, in the La Pediatria, reports the case of a child, aged four years, who belonged to a neuropathic family and who exhibited a marked tendency to masturbation. No worms were found about the anus, but a vulvovaginitis was present. The latter was treated by appropriate local methods, and internally bromids and small doses of opium were given four times daily. The local inflammation disappeared, and the child ceased to masturbate within two weeks. The author says that in small children masturbation should not be treated as a defect of morality, but as a disease depending upon a deficiency in nutrition of the body. In this case there was not true onanism, but a pseudoonanism, because true onanism is a symptom of a cerebal neurosis, and does not exist in young children. At this age masturbation does not have the same significance as in puberty, for in small children masturbation is nothing but a tic or a bad habit just as sucking the thumb is in infancy.

There is no question but that in very young children masturbation is quite frequent because it is accompanied by a distinct pleasurable sensation which the child seeks mechanically to reproduce. Some nursemaids even resort to teaching children to masturbate in order to prevent them from crying. In young children the prevention and treatment of masturbation depends largely upon the preservation of the genitals of the anal region in a state of scrupulous cleanliness and in attention to constipation, urticaria, and other sources of irritation. The child should be watched discreetly; it should be occupied with something else, and the instinctive act to which it is inclined should be gently prevented. During the night the child should wear clothing that covers the genitals well, but does not irritate the parts. At times the hands may be tied, and in nervous children bromids and opiates may prove of value.

Congenital Stricture of the Esophagus.

Rogers (Brti. Jour. of Child. Dis.) mentions the case of a child that came under his observation when one year and ten months old. He was a prematurely born child and was nursed by his mother for three weeks only; after that it was fed on milk and patent foods. He did fairly well until ten months of age; he took his food well, and was sick only a few times, not sufficiently to make his mother anxious about him. A few weeks before the child came under the author's care he grew worse, and began bringing up his food unchanged soon after a meal. The food was mixed with a large quantity of mucus. The vomiting was very severe, the child losing considerably in weight, so as to necessitate rectal feeding. On admission to the hospital the child weighed 16 pounds and 9 ounces. He was rickety, constantly crying

—the author thought from hunger. The veins in the neck were very full, swelling up from below upward considerably when the child cried. The neck was thin, but the lower part seemed full, though no definite enlargement could be distinctly made out. The lungs were full of mucous rales, no dulness could, however, be found in the thorax. The temperature was subnormal. Vomiting came on after every meal; the milk given him returned, as a rule, uncurdled, and was neutral to test paper. Sometimes the vomit came from the stomach. To test how long the food was retained, the child was fed every four hours alternately with colored and uncolored food, using methylene blue, fuchsin and chocolate for coloring. After several days observation it was found that most of the food went into the stomach and was absorbed; but part of the food was retained, however, for as long as eight hours, somewhere, either in an esophageal pouch or above a constriction in the esophagus.

The passage of a tube proved of very little diagnostic aid. Several times it was impossible to get beyond a point just behind the upper part of the sternum, on other occasions the tube went down into the stomach and returned with an acid fluid on the tip, while often it seemed to hitch near the cardiac end of the esophagus and to coil up on slight pressure.

A Case of Congenital Coxa Vara with Associated Deformities.

Clarke (British Journal of Children's Diseases) describes a case in a girl two years old, who was sent to him as a case of congenital dislocation of the hip. The patient had never attempted to walk, and many characteristic features of congenital dislocation of the hip were present. (1) The great trochanter was elevated to the lever of the anterior; (2) abduction of the limb was limited, and (3) there was an unnatural hollowness of Scarpa's triangle. He could not, however, obtain the head of the femur in the dorsum ilii, nor could he obtain any up and down movement of the trochanter on alternately pushing up and drawing down the limb. A skiagraph put all doubt to flight by showing the neck of the left femur to be bent to a right angle with the shaft of the bone, whilst the upper end of the femur on the right side is normal, the neck of the bone forming a very obtuse angle with the shaft.

There are other deformities, also congenital, in both lower limbs. On the left side the knee was bent at an angle of nearly forty-five degrees, and no trace of the corresponding patella could be felt; the quadriceps extensor of the knee appeared also to be absent, as the child had no power of actively extending the knee when the latter was fully flexed. The foot was in a condition of severe talipes equino-varus, the left lower limb was stunted, being 3 inches shorter than the right. The right limb had a knee in an over-flexed condition and talipes calcaneo-valgus.

As to treatment he suggests first to subcutaneously divide the abductors and the anterior parts of the glutei medius and minimus and tensor fascial femoris. Then the knee was straightened by complete open division of the adductors. Then the equino-varus was corrected.

Passin exercises and massage were prescribed, and at the end of six months the child, wearing a three-inch patten on the left boot and her instruments, can walk readily around a table and a few steps forward unaided. The patella of the left side had appeared, and both feet were normal in form. The left knee was improving under the influence of an apparatus that maintains complete flexion during the night time.

Effects of the Natural Sodium Chloride Waters Upon the Secretion and Motility of the Stomach.

Meinel (Zeitsch. f. diet. u. physik. Ther.) calls attention to the contradictory evidence of laboratory experiments and clinical experience. He shows that the taking of common salt has a distinct inhibitory action on gastric secretion; on the other hand clinicians all the world over, are agreed that the natural NaCl mineral waters are of great value in those cases where the amount of HCl, is below the normal. Meinel finds that the cause of this paradox lies in the amount of salt used in the experiments being too large. The natural mineral waters, such as the Kissingen, Rakoczy, Wiesbaden, etc., contain in the neighborhood of 0.5 per cent. of NaCl r so that the amount of NaCl taken at one time never exceeds half a gramme. Besides, at the springs where these waters are taken, it is the custom to drink them when the stomach is empty—half an hour to an hour before meals—and the water has left the stomach before any food is taken. Making use of the natural NaCl mineral waters, which were given before and with a test meal (consisting of 300 c.c. of oatmeal) Meinel found that the experience of clinicians could be substantiated by the laboratory.

During the administration of these waters the amount of acidity was found to be slightly increased and the maximum height of secretion was sooner reached and lasted a shorter time.

The motor activity of the stomach was also increased, but this was probably due more to the carbonic dioxide these waters contained than to the presence of sodium

chloride. The influence upon peptic digestion was slightly to increase its growth.

Effective Internal Disinfection of the Biliary Passages.

Kuhn (Munchener Medicinische Wochenschrift) says that thymol, menthol and the salicylates are the only drugs out of a long list tested which displayed any efficacy in this respect without serious by-effects. Salicylic acid passes into the bile in large amounts and even in a comparatively weak solution checks the fermentation of the bile. All the numerous tests resulted positively, and justify the assumption that the salicylates can be used for effectual disinfection of the biliary passages. Exhibition of the salicylates therefore, in cases of cholangitis and cholecystitis, is to be commended to the general practitioner. Further tests of a combination of two or more of the above mentioned drugs seemed to demonstrate a still more effectual action. The writer found that the gasproducing power of the bile derived from a biliary fistula was very much reduced when the subject was under the influence of the salicylates alone or combined with menthol or thymol. Bile from a biliary fistula exhibits progressive fermentation, but when the subject has been taking the above drugs the fermentation is much less intense and subsides much earlier. The effect of the drugs is not perceptible until after they have been duly absorbed and it lasts for some time after they have been suspended. The best internal medication in case of inflammation in the biliary passages is, consequently, salicylic acid and its salts."

A Case of Vaginal Cesarean Section for Eclampsia,

Maly (Zent. f. Gyn.) describes a patient 27 years years old. The first labor was accompanied with two eclamptic attacks and required forceps. The second and third pregnancies were marked by severe dropsy. The labors as well as the fourth were normal. During the fifth pregnancy nothing abnormal was observed. At the end of the eighth month she had headache one morning, followed the same day by a severe eclamptic attack. Five severe convulsions followed with deep coma after the second seizure.

The sixth attack occurred in the hospital with pronounced cyanosis. Head presented in first position. Cervix 3 ctm. long admitting one finger. Urine contained 3 per cent. albumin. Vaginal Cesarean section was decided on,

The cervix was seized in two Muzeux clamps on either side. Transverse vaginal incision was then made across the cervix anteriorly the bladder pushed up. The cervix was then split up the anterior uterine wall to a point just beyond the internal os and without opening up the peritoneal cavity. The hand was introduced into the uterine cavity and the bag of waters ruptured. This was followed by version and extraction of a living eight to nine months' child. Because of considerable atonic uterine bleeding the placenta was soon removed and the uterine cavity packed with gauze. The sagittal cervical incision was united with five and the transverse vaginal incision with four catgut sutures, draining a small space between uterus and bladder with a strip of gauze.

On the next day the patient had two light eclamptic attacks. Mind not entirely clear but no real coma. The following day some maniacal excitement. This became so bad on the third day that the straight-jacket was necessary. After this she quieted down and convalescence was henceforth uninterrupted. No more albumin after the 14th day.

The Causation and Treatment of Incontinence of Urine in Children.

Thompson (Scottish Med. and Surgical Journal) says that the etiology of enuresis has always been a much disputed matter. Some regard it as a purely functional disturbance; some think that there is always a local disease behind the neurosis; and many take a somewhat intermediate view. The clinical varieties are generally admitted, theoretically, to be numerous. In practice, however, there is a strong tendency for the medical man to get into the way of classing the cases unscientifically into two groups—those which recover and those that get worse in spite of treatment.

The most important recent contribution to the subject is that of Dr. J. G. Rey on the results of his experience in the investigation and treatment of 52 cases of enuresis in children which he has had under observation during the last five years. Rey is convinced when there is no central nervous lesion or mental defect present and noninfantilism or athyria, the wetting is always primarily due to the presence of local disease or irritation of the bladder or of neighboring parts. The local disease or irritation may have passed off by the time the case is seen, but originally it was there. In cases where the local cause recovers in this way but the enuresis continues, it is easy to see that faradism, epidural injections, etc., may bring about a sudden cure.

One of the commonest and most important causes is latent cystitis due to bacillus coli. Rey has found the internal administration of salol, along with a strict milk diet and regular meals, to be better than washing out the bladder, in these cases.

Another very important cause of enuresis is simple mucous cystitis. The child's distress can often be relieved, even within 24

hours, by regulation of the diet and the administration of salol. When there is an irritation or constriction of the meatus, this greatly favors the continuance of the incontinence. A less frequent cause of enuresis is phosphaturia. This is best treated by a flesh diet and a diminution of vegetable food. It is sometimes caused by an accumulation of smegma about the corona glandis.

Epidural injections have been suggested by Dr. F. Cathelin and Dr. G Kapsammar. for enuresis. These injections have been followed by no untoward effects, and have done a great deal of good.

Another new method of treatment for obstinate cases has been devised by Professor Jaboulay. Large quantities of sterile salt solution are injected into the retrorectal connective tissue. Revel has had three cases that were treated by this method with entire success.

Hydrocephalus of Syphilitic Origin.

Galatts (Wien. Klin. Woch.) finds that the brain is more frequently the seat of syphilis hereditaria than is generally supposed. Its detection, however, is often very difficult, owing to the simultaneous appearance of other syphilitic symptoms and possible retrogression of the initial brain symptoms as a result of antisyphilitic treatment. The writer mentions that every case of hydrocephalus without any distinct cause as a manifestation of syphilis, and explains the failure of antisyphilitic remedies in such cases by the fact that the treatment is generally begun too late. In syphilitic hydrocephalus the skull is usually but slightly enlarged, hence the reason why it is often overlooked.

He observed this form of hydrocephalus in two brothers and one sister. The parents were apparently healthy The first child when ten months old had an attack of spasmus glottidis, and presented signs of hydrocephalus. The child died during an attack of eclampsia. Post-mortem examination revealed: internal hydrocephalus, chronic inflammation of the meninges and of the cerebral cortex, and localized cerebral softening. The second child showed signs of hydrocephalus when one month old; he soon became subject to nose bleed, coryza and ulceration of the soft palate. The third child had pemphigus when four weeks old, and later a macular syphilitic eruption, affecting the entire body.

The Microbes of the Suckling's Mouth.

Jeannin (British Medical Journal) contributes a valuable article on the bacteriology of the mouth of the new-born child and the suckling. His conclusions are as follows: (1) At birth the infant's mouth is, as a rule, aseptic. (2) Germs invade the mouth within the first hours of life and before the child has been put to the breast. These germs, always in small numbers, are streptococcus salivæ, S. aerobius micros, and staphylococcus parvulus. (3) The beginning of suckling causes free development of the germs. Within a few hours from three to six species, aerobian and anaerobian, make their appearance. (4) Jeannin has discovered an almost fixed formula for the bacteriology of the healthy suckling's mouth. There are some four to six species, mostly aerobian (pneumococci, streptococci, staphylococci, and bacillus coli). The anaerobians, always in a majority, are relatively inactive and do not develop gas. (5) There is also a pathological formula for infants which are sickly, independent of diseases where specific germs are to be found. The microbes are very abundant and multiply actively, and the anaerobians increase still more in proportion to the other kinds and develop gas when cultured. (6) Extreme development of the microbes of the infant's mouth is invariable amongst infant's placed in the couveuse.

Toxin and Antitoxin.

Pirquet (Munch. Med. Woch.) says that there is no experimental proof that a multiplicity of poisons exists with each disease, of qualitatively similar action, but varying toxicity and affinity toward the antitoxin, such as Ehrlich assumed when he formulated his theory of a "poison spectrum." Likewise, there is no reason to assume that toxins act differently than other organic poisons. The conversion of a toxin into a non-poisonous "toxoid" with undiminished affinity for the antitoxin is possible, but not strictly proven. Toxin and antitoxin have weak chemical affinities toward each other and in combining they follow the law of other chemical compounds of weak attraction. It is possible that occasionally molecular compounds of varying proportions are also formed. The long period of incubation and other phenomena are best explained on this hypothesis. The formation of antitoxin has nothing to do with toxicity and cell-immunity for (*a*) many innocuous substances can lead to the production of antitoxin; (*b*) animals not susceptible to certain toxins, will yet manufacture antitoxins; (*c*) despite the presence of a large amount of antitoxin, the susceptibility to a poison may still persist and even increase; (*d*) cell immunity can be acquired without antitoxin formation; (*e*) the antibodies are not formed in those organs where the toxin is most active. The specific antibodies are not normal constituents of the body; their production occurs only after the introduction of foreign matter and has the character of an internal secretion. It is due

to unknown peculiarities in the molecular structure of this foreign matter. The non-poisonous toxin antitoxin compound does not lead to the formation of more antitoxin, it is chemically of an entirely different structure than its two constituents.

Paratyphoid Fever.

Keith, in the Scottish Med. and Surgical Journal, gives the following resume of the conclusions drawn from the investigations considered by him: (1) That there exists a disease which simulates the disease known as typhoid fever so closely that they can only be distinguished by bacteriological means. (2) That the disease is caused by an organism which exists in two varieties and which may be regarded as bacteriologically intermediate between the bacillus typhosus and the bacillus coli communis. (3) That the disease is on the whole mild and the prognosis is good. (4) That the treatment of the disease is similar to that of typhoid fever. (5) That the disease spreads in the same manner as typhoid fever, and that the same hygienic and general measures should be taken in cases of this disease as are adopted in typhoid fever. (6) That in suspected typhoid-like cases a bacteriological examination is of the greatest importance both for diagnosis and prognosis and should be made wherever it is possible. (7) That up to the present the disease must be regarded as acute general infection in which no definite local lesion has been shown to exist.

Paratyphoid fever is probably conveyed in the same manner as is typhoid fever. It is not markedly infectious. The incubation period is about fourteen days, the spots appearing from the twentieth to twenty-sixth day. Perhaps the most valuable deductions to be drawn from the investigations of paratyphoid fever is that experiments have tended to show that immune sera can be produced which have a protective power against lethal doses, not only of homologous organisms but also of organisms which are related, thereby indicating to some extent the possibility of a new line of treatment in cases of infectious diseases.

Wright, as is well known, is of the opinion that typhoid fever can be warded off completely in some cases and in others rendered less severe by injections of dead cultures. He says that the indications given by the results of the experiments on animals with protective sera in the case of bacillus typhosus and allied organisms is but the initial stage of a new curative method of treatment. This matter, however, requires further elucidation before any large definite statements can be made regarding it. Nevertheless, it may be said that the prospect is hopeful.

New Method for Treatment of Hay Fever.

Finf (Therapeutische Monatschefte) says that the many remedies which have been recommended for it, frequently fail in relieving the patient even temporarily. He does not accept the theory of Dunbar, that the disease is due to toxins of the pollen of the graminaceæ, nor does he believe in the efficacy of the antitoxin discovered by this author. This antitoxin does not confer any immunity; Fink has treated 3 patients with it, without giving them any relief. In treating hay fever it should not be forgotten that the patients are all more or less neurasthenics. An abnormal reflex irritation of the trifacial nerve produces in these subjects a hypersecretion of the maxillary sinus; therefore the antrum of Highmore must be treated locally to relieve hay fever successfully. Aristol applied to the mucosa of the maxillary sinus cures; Finf asserts, all forms of nervous coryza, hay fever being no exception. Each year that the hay fever returns, the aristol treatment must be recommenced; in only one case did the hay fever fail to return in the year following the treatment with aristol. The cavity of the sinus can be entered in 95 per cent. of cases with very fine syringes of appropriate curvature. Fink has invented an insufflator by means of which aristol can readily be blown through the hollow needles. The insufflations usually suffice to cure the ordinary attacks; sometimes 6 to 7 interventions are necessary, but this number is rarely exceeded. The occular symptoms disappear rapidly. The author has treated in this manner 14 patients, and has cured all of them, without causing them to change any of their habits. Since then they have promenaded among flowers with impunity. The first 3 insufflations should be given daily; after that the severity of the symptoms should govern the frequency of the treatment. He has seen 2 cases of unilateral reflex disturbance, which he cured by applications to the respective sinuses.

Trypan Red in Trypanosomiasis.

Ehrlich and Shiga (Berlin Klin. Woch.) say Laveran's and Mesnil's work on this subject have shown the possibility of success, but their successes (they employed sodium arseniate and human blood serum) have all been only temporary. The authors have experimented with mice infected with the blood of rabbits suffering from Mal de Caderas. After 24 hours such an effected mouse shows a few trypanosomes in her blood, on the third day they are plentiful and death occurs on the fourth to fifth day. If a solution of trypan red, a coloring substance the chemical structure of which they show by means of a graphic formula, is in-

jected into the mice subcutaneously, at the same time but in different places from the trypanosomes blood, the animals do not get ill. But even on the third day of the injection, the day before the death of the control animals, they succeeded in curing the mice by injecting 0.3 ccm. of 1 per cent. solution of trypan red. Relapses however, occurred very commonly, some of the organs forming depots for the parasites. Sometimes the relapses come on very late, and they are always easily cured with the same substance. The same protective action is noticed when the coloring substance is given to the mice by mouth. Experiments with rats were not so satisfactory and relapses were even more common. With guinea pigs and dogs the results were even less favorable. Experiments with mice infected with Nagana disease parasites were moderately successful. Many other substances were tried, but always without success. They did not succeed in killing trypanosomes outside the body with even one-half per cent. solution; their destruction occurs exclusively within the body. The protective reaction is very transient lasting from 2 to 3 days only. As long as the material is not firmly fixed in the tissues, a reaction is produced which leads to the killing of the trypanosomes; these products cease to be formed as soon as the trypan red is firmly fixed by the tissues. Whenever infected animals, treated on the fourth day and cured, were infected within a week, they did not acquire an acute disease. This active immunity lasted for from 20 to 30 days and then gradually subsided. The trypanosomes killed by the coloring substance evidently give rise to immune substances. As the dead parasites are eliminated the animals become susceptible to fresh infections. Residual parasites may then become parasitic.

These observations suggest the same explanation for the relapses of malaria and syphilis. The residual germs reawaken to activity when the active immunity conferred by drugs and dead germs is past. The fact that a drug can produce active immunity is also worthy of observation.

Amyl Nitrite in Hemoptysis.

Francis Hare (Edinburgh Med. Journal) has tested the action in five cases, one of mitral obstruction and four of phthisis. In every case the inhalation proved successful, and the hemorrhage stopped at once. The writer believes it acts as follows: Normally, effusion of blood irritates the lung tissue, causing coughing. The strain of coughing raises the blood-pressure, inducing fresh bleeding. In this way a vicious circle is maintained, till eventually the loss of blood becomes so great that the exertion of coughing no longer causes a marked rise of pressure. Then the bleeding ceases. Amyl nitrite, by dilating the vessels, accomplishes the same effect without the further loss of blood. It is similar in its action to the old plan of treating bleeding by venesection.

Therapeutic Application of Barium Chloride.

Tabora (Deutsche Medicinische Wochenschrift) has employed barium chloride in 36 patients afflicted, respectively, with tuberculosis, cardiac valvular and muscular disease, pericardial effusion, interstitial nephritis with cardiac insufficiency, acute febrile infections and croupous pneumonia. He gave the drug in daily doses of 0.1 to 0.15 gram (1½ to 2¼ grains) and usually gave it for 2 days. No unpleasant side effects were noted. It increased the blood pressure invariably in every case; the amounts of increase varied between 15 and 58 mm. Hg. The lower the original pressure, the more increase was noted. This action began 4 hours after ingestion reaching its maximum about the twenty-fourth hour, remaining there for several days to fall again gradually. The tension of the pulse improved in proportion, and some slowing was noted in every instance. Arythmic pulses, if due to extra systoles of ventricular origin, were overcome somewhat. In some of the cases it acted as diuretic, in others, not. Slight dyspnœa and edema were usually made to disappear, graver states were not influenced. He, therefore, recommends it in cases of cardiac insufficiency of minor degree, irrespective of whether this is muscular or valvular, but especially where disturbed compensation is associated with lowered arterial pressure. It is not to be compared with digitalis in grave cases, and where digitalis fails, chloride of barium is of no use whatsoever. It is not as useful in nephritis with cardiac asthenia, as here the blood pressure is usually either normal or already elevated. Its action is due to its power on the blood vesssl walls which it contracts, thus increasing the blood pressure; the stimulated pneumogastric nerves slow the heart's action. In acute croupous pneumonia and other infections, in which the lowered blood pressure is due, not so much to primary cardiac weakness, but to a central vaso-motor paralysis barium chloride acted very favorably on blood pressure and pulse, and indirectly, therefore, on the course of the disease.

The Etiology of Scurvy.

Coplans, in the Journal of Tropical Medicine, contends that scurvy is not due to either the presence or absence of any particular kind of food, but rather to an infection, for which food may act as a vehicle under conditions of dirty storage or dirty

preparation; and, considering that the disease prevails in inverse proportion to the standard of personal hygiene of the individuals affected, that its infectivity would seem to depend on the insanitary habits and, perhaps, the unwholesome occupations of those who are its victims.

The writer bases these conclusions upon the facts—(1) that the disease prevailed at the burgher camp at Middleberg at a time during which the camps at Standerton and Volkrust were free, precisely the same kind of food being supplied to all three, but the insanitary condition of the first being inferior to the others, and the chief sufferers being those who from advancing years were unable to fend for themselves, and those who, suffering from mental depression at the prolonged separation from relatives, neglected to obey even the ordinary rules of personal cleanliness; (2) that the disappearance of the disease from Middleberg was coincident with endeavours to improve the sanitary condition and promote personal cleanliness; (3) that scurvy did not appear in the Standerton district until the last month of the war (when the mobile troops became stationary and concentrated into large units), and that, with one exception only, natives suffered, although most of these had abundance of fresh fruit and vegetables, the incidence being chiefly among the sanitary corps, 76 per cent. of whom suffered against 16 per cent. of the labour corps, the dietary of both being similar; (4) that the only European affected (the exception referred to above) was attached to the sanitary corps and lived with the natives, his diet being similar to that of the other European soldiers, while the family of the head native (consisting of six), living in a tent apart, and with a high standard of cleanliness, was unaffected; and (5) though not one of the natives employed as servants in the European camps, military messes, shops, or town houses showed any signs of the disease, that, in the remaining units, both civil and military, scurvy prevailed directly as the filthy habits of the natives were allowed to go unchecked by direct European control.

The infection would seem to occur primarily through the mouth, the general system being involved later and secondarily. The chief manifestations are spongy bleeding gums, anæmia, breathlessness on exertion, lameness associated with sinovitis in the joints, and hæmorrhages, with brawny, indurated swellings in one or both lower limbs. Death occurs from cardiac failure, and, post-mortem, the blood is found to be fluid, and submucous, subpleural, and subserous hæmorrhages to be present, the heart being thin and pale, and the right side dilated.

Gastric Cancer.

Moynihan, in the London Practitioner, believes with Kronlein and Mikulioz, that carcinoma of the stomach is usually fatal within twelve months, that gastroenterostomy prolongs life on an average of about 3 months, and that gastrectomy, when followed by recurrence, prolongs life about 14 months. In some cases gastroenterostomy will markedly benefit even those cases in which the growth does not interfere with drainage of the stomach, although this result is not to be expected. In cases in which there is stenosis of the pylorus, narrowing of the stomach from hour-glass contraction, or stasis of the stomach contents, gastroenterostomy is of the greatest value, but when the growth is confined to one of the curvatures of the stomach, and there are no symptoms of stasis, gastroenterostomy will not prolong life, nor make the patient any more comfortable. The operation of gastrectomy, in the hands of a few operators, has given a smaller death rate than gastroenterostomy. Gastrectomy gives a greater expectancy to life, and makes the patient more comfortable than gastroenterostomy, as it removes a foul ulcerating mass. Even when there are secondary deposits, and recurrence is assured, gastrectomy may be considered as a palliative operation. The advantages of gastrectomy over gastroenterostomy are, that it has a smaller mortality, gives 10 more months to life than gastroenterostomy, makes the patient comfortable, improves the general health, and holds out some faint hope of complete cure. When neither of these operations can be performed, and it is desirable to prolong life for a few weeks, duodenostomy, or jejunostomy, may be performed. Either of these operations may be performed under local anesthesia, are simple, and cause but little shock.

Uncomplicated Gunshot Wounds of the Stomach.

Oppe (Roussky Vrach) says that this is always an indication for surgical interference, no matter how unfavorable the prognosis. The importance of the lesion lies not in the wound of the stomach but in the traumatism of the large blood vessels. The expectant treatment in uncomplicated wounds of the stomach alone is always followed in a certain number of cases by general peritonitis. Early abdominal section is considered by such surgeons as Mikulicz, Kukula and others, as the only method of treatment of gunshot wounds of the stomach in time of peace. If the wound is located in the abdominal walls corresponding to the site of the stomach, then it remains

to decide as to whether it extends into the peritoneum and whether the stomach is invaded. At times it is not difficult to decide this question, but frequently it can not be easily determined. He mentions among others, the case of a girl of eighteen years, who shot herself in an attempt of suicide. The wound was located along the left mammary line, below the nipple. Four hours later abdominal section was performed as the author suspected invasion of the stomach. Its anterior surface proved to be the site of a wound 1½ cm. long, there was no prolapse of the mucous membrane, nor was there any exudation of the gastric contents through the wound. The posterior wall of the stomach contained no wound of exit, and no bullet was felt in the cavity of the stomach. The peritoneal cavity was filled with 800 c.c. of a warm saline solution. The postoperative course was uneventful. The sutures were taken off on the sixth day. Examination of the abdomen with X-rays failed to discover the whereabouts of the bullet, which, however, was found located in fecal masses in the rectum, and extracted without difficulty. When the symptoms point to an undoubted trauma of the stomach, operative interference becomes imperative so as to prevent a possible purulent peritonitis. However, Reclus is a warm defender of expectant treatment, as according to him the healing of the wound is frequently brought about by the falling into it of the mucous membrane which thus serves the purpose of a tampon. But Klemm has shown experimentally that such healing is of infrequent occurrence, as the peristaltic movements of the organ must necessarily prevent the closing of the wound. Abdominal section is indicated, in gunshot wounds of the stomach alone, only in recent cases. But if the patient comes under the surgeon's care on the third day and later, then the question as to the operation will depend on the peculiarities of the given case, for the absence of symptoms pointing to an invasion of the peritoneum during the first twenty-four hours will serve as an indication that the wound of the stomach does not permit the exudation of its contents into the peritoneal cavity.

The Action of Small Quantities of Chloroform.

Sherrington and Sowton (British Medical Journal) have investigated for the Chloroform Committee of the British Medical Association the affect of anesthetic on the mammalian heart. These experiments were made upon the isolated heart of the cat which was supplied with defibrinated oxygenated cat blood. To portions of this blood definite quantities of chloroform were added and alterations in the activity of the heart noted. They found that the presence of 0.3 part of chloroform per thousand in the blood caused a slight weakening in the activity of the heart although recovery was rapid and complete, while the presence of 1.5 part of thousand caused a complete cessation of cardiac activity, although if exposure had not been too long, perfusion with normal blood was capable of restoring the heart. With 5 parts per thousand the heart was permanently killed.

Byles, Harcourt and Horsley, (Ibid) have studied the amount of chloroform which is dissolved in the blood during the period of anesthesia. They found that the amount of chloroform in the blood during the state of anesthesia was 0.039% and that the amount of chloroform in blood on the cessation of the respiration was 0 065%.

Chronic Gastric Disease the Result of Congenital Narrowing of the Pylorus.

Maylard (British Med. Journal) mentions 7 cases of this disease successfully treated by operation. The patients are mostly women under the normal standard of health. Great improvement is always possible to effect by dieting but the symptoms return when dieting is discontinued. Operation is the only means of cure. Of the three operations which may be performed. pyloroplasty, pylorodiosis, and gastrojejunostomy, the last is the proper one to adopt. Relief may be immediate but often it takes months even after operation to effect a cure. An oblique incision is made commencing about one inch below the right costal margin and one inch to the right of the middle line, and extending for from 3 to 4 inches across the median line downwards and outwards at a distance of about one inch from the left costal margin. By this incision the right rectus is divided for one-half inch and the left for 2 or 3 inches. After withdrawing and turning upwards the stomach and transverse colony the mesocolon is teased through and its edges secured by 3 or 4 stitches to the posterior wall of the stomach, which is made to present. The jejunum is picked up close to the duodeno-jejunal bend, applied to the stomach, and stitches to the stomach for about 3 inches, the direction being such that when the stomach is replaced it and the united bowel still occupy much the same relation as before union. The opening of communication is one and one-half inches long and is made close to the greater curvature. There is no angulation of the gut possible and there is no long loop of proximal bowel to become "waterlogged" and cause future trouble. As the bile and pancreatic juices soon mix with the intestinal juices there is little danger of the formation of peptic ulcers in the distal limb. The ejection of

the bile into the stomach never takes place because the method of attachment causes it and the pancreatic juice to be shot past the opening into the more readily accessible channel below.

Hydrotherapy in Tuberculosis.

D. Kuthy, in the Blaetter fur Kline, Hydro-ther., says that in Budapest only 15% were discharged without any improvement, while from Belzig at Berlin, 42.5% were discharged thus; of his patients admitted in the first stage, 53.9% were discharged clinically cured, of the Belzig patients only 39%. There is but one difference in the treatment as carried out in the two institutions; at Belzig douches are the only hydrotherapeutic measures employed, at Budapast each individual receives any form of hydrotherapy deemed likely to prove beneficial. The patients well enough to be about are treated most frequently with the half bath; the patients who are kept in bed, are treated by cold washing of the entire body in the morning and cold compresses to the trunk, changed every 2 to 3 hours. The duration of the half bath is 3 minutes, the temperature of the water at first is 89, and is gradually reduced to 82; while the patient is in the water he is well rubbed. This treatment improves the appetite, regulates the bowels, acts as a tonic, improves the sleep, betters the subjective state and is a mild hardening agent; with neurasthenics the water must not be below 85 deg. otherwise they become irritable and restless. The bath is not used to reduce fever; patients with fever are better kept quietly in bed, nor would it be good to remove from them too large quantities of heat as their fever is due to a breaking down of tissues; the cold water increases cough, such patients are treated to much greater advantage with the cold water compresses. The entire trunk may be covered with a cold, wet bedsheet and this covered with a dry one and the patient thus placed in an evaporation bath. If adhered to for some time patients even in the third stage will have their fever reduced to normal and feel themselves much better; their appetitè often improves remarkably. The cold wash of one part after the other every morning takes the place of the half bath above mentioned. Douches are used by him but little; they are altogether contraindicated in neurasthenics, where there is a tendency to fever production, tendency to pulmonary hemorrhage and pleural pain. Foot baths and cold application to the calves are good to reduce the temperature and induce sleep. Cold applications over the heart reduce cardiac irritability, just as warm applications over the stomach reduce gastric irritability.

Hydrotherapy in Mental Diseases.

Kellog (Blaetter fuer die Klinische Hydrotherapie) recommends the use of hydrotherapy in all diseases of the mind and expresses his belief, that in time the pharmaceutical somnifacients will have to yield their place completely to the employment of the water cure. The writer describes the case of a woman, with acute mania, who had slept little for 6 weeks, in spite of heroic doses of hypnotics; 6 nurses were required to hold her. A bath at 95 deg. F. quieted her in 15 minutes, and after a second bath some hours later she slept the night through. The bath and wet packs sufficed from then on to keep her quiet until her discharge 3 months later as cured. At the Manhattan State Hospital all excited patients are put in the bath tub on their arrival and kept in constantly flowing water of 99 deg. F.; within a short time they fall asleep in their baths. The patient is kept in the bath from some hours to some weeks, depending on his mental state. The skin does not suffer greatly by these prolonged baths. He also employs sitbaths, sweatbaths, rainbaths, needle douches, warm and cold packs and Scotch douches. The latter he considers one of the best known tonics to medicine. Another system of treatment in diseases of the mind, which has proven efficient, is fresh air treatment; the patients are kept in tents all summer and fall, until the cold weather sets in and more patients have been discharged cured at Manhatten by this combination than ever before. Sports of all kinds are encouraged by him.

The Occipital Root for Exposing the Sensory Root of the Fifth Nerve.

Armour, in the London Practitioner, reviews the surgery of the Gasserian ganglion and details the method suggested by Ramonede. An incision which includes the soft parts down to the periosteum commences one cm. above the tip of the mastoid process and in the center of its cutaneous surface and passess upwards just behind the commencement of the temporal ridge, curving backwards it reaches its highest point 3 cm. above the superior curved line of the occipital bone and then passes downwards, at a distance of about 4 cm. from the external occipital protuberance. A flap of periosteum is then turned down. The posterior border of the mastoid process and the asteriom are thus laid bare. An opening in the skull is made reaching upwards 1 cm. above the asteriom and in front nearly to the mastoid process. In the upper and the anterior part of the opening is seen the lateral sinus. A semicircular incision is made in the bend of the sinus, and a short distance from it. The cerebellum is retracted and

the root of the fifth nerve reached at the apex of the petrous bone, avoiding in so doing the seventh and eighth nerves lying below and at a lesser depth. The nerve is isolated by means of a blunt hook, care being taken to avoid wounding the sixth nerve lying beyond it. The sensory root is severed and the peripheral end torn away.

The Prognosis of Epilepsy.

Turner, (Edinburgh Medical Journal) says that Herpin in 1852 first gave detailed attention to this phase of the question of epilepsy. His percentage of cures was much greater than that of more recent writers upon this subject.

It does not seem that the use of the bromides has improved the prognosis to any great extent. Sex has little to do with the question of prognosis. More males than females show arrest of seizures, but there are also cases of epilepsy in males than in females There is a greater percentage of epileptic dementia in females, while in males the most frequent mental condition is impairment of memory and blunting of the higher mental faculties.

With regard to heredity, there is as great a probability of arrest of the disease in those who have a family history of epilepsy as in those who have not. General improvement is more likely to occur in those who have no hereditary taint in this direction. If there is hereditary tendency to epilepsy or insanity, it increases the probability that the disease will be permanent and that dementia will result.

Epilepsy commencing in infancy or childhood is most likely to be persistent. The type which begins during puberty is the most favorable one. Adult epilepsy is unfavorable, senile epilepsy is tractable.

The earlier a case is brought under treatment the greater is the probability of improvement. There is a progressive tendency for the disease to become confirmed the longer it lasts without definite treatment. The longer the interval between the attacks the greater the prospect of arrest or improvement. If attacks are of daily or weekly occurrence the chances of recovery are not good, and there is grave prospect of mental impairment. The major attacks are more influenced by drugs than the minor ones. Mental disturbance is more frequent with *petit mal* than with *grand mal*, but is the more profound when the two varieties are combined.

Remissions are a characteristic feature of this disease. When the disease begins in infancy it may remit during childhood and recur at puberty. Several years may intervene between the first and the second attacks. Remissions sometimes occur under the influence of bromides, the disease returning if the drug is omitted. A remission may be terminated by a blow upon the head, a fall, childbirth, an inflammatory disease, etc.

In general terms it may be said that the disease is curable, but there is great difference of opinion as to the period of remission which constitutes a cure. The author does not consider any case as cured in which the seizures have not been in abeyance nine years. In his analysis of a large number of cases he has found that in 10.2 per cent. only was there a remission for that period. If improvement is to occur at all as the result of treatment it will be likely to occur within a year from the time that treatment is begun.

Extirpation of the Tensor Vagina Femoris for the Correction of Internal Rotation in Spastic Paraplegia.

Gibney. (The American Journal of Orthopædic Surgery.) The persistence of pigeon-toe depending on internal rotation is well known to both the neurologist and orthopædic surgeon. By myotomies and myodases the crural adduction and the equinus may be corrected. Transportation of tendons has been made to overcome the remaining rotation. In a case of spastic paraplegia, with incoördination, marked equinus and scissors-legged deformity of the thighs, where marked spacticity were present.

The author has performed double Achillotomy, later the adductors of the thighs were broken down to permit extreme abduction. Finally the tensor vagina femoris was dissected out to correct the pigeon-toe, with satisfactory results.

The Treatment of Catarrhal Pyelitis by Pelvic Lavage.

Ayers (The American Journal of Urology) believes that catarrhal pyelitis is much more common than has generally been supposed, that it is frequently the result of chronic urethritis, and that in many cases of supposed chronic urethritis the symptoms are really due to the existing pyelitis. From observations on 70 cases, he comes to the conclusions that this form of catarrhal pyelitis can be very much improved or even cured by pelvic lavage, and that moreover pelvic lavage is of great service in the treatment of pyelitis from other causes. The author says that by this method of treatment it is possible to prevent nephritis and to cure nephritis in its early stages. He says that the dangers of catherization of the ureters are as great as has generally been supposed, and that it can generally be performed without difficulty.

Surgical Interference in Gangrene of the Lung.

Auvray (La Presse Medicale) in an interesting article discusses pneumotomy. This is performed under general anæsthesia, and the difficulty of the operation may be increased owing to the difficulties of administration. In pneumotomy resection of the chest-wall is practically always necessary, in order to secure good drainage and free evacuation. If, after resection, the parietal and visceral pleuræ are found adherent, the lung may be explored with the finger or a needle, or even, as in Berndt's case, with the thermo-cautery. Free incision of the lung should be made, preferably with the thermo-cautery, in order to avoid hæmorrhage. It may be necessary to enter the lung-tissue to the depth of 8 to 10 centimetres, in order to reach the gangrenous cavity.

If, on opening the thorax, the pleura is found to be healthy and not adherent, it becomes necessary to excite adhesion in some way, in order to avoid pneumo-thorax. The quickest way is by a continuous suture, the two ends of which are knotted together. Irritation by caustics or by gauze packing necessitates the postponement of the operation. If the lung retract, it should be seized and stitched to the edges of the wound. If the pleura be secondarily infected and a purulent empyema be present, the communication between it and the gangrenous cavity should be sought and enlarged by the thermo-cautery. The cavity should be explored with the finger and the electric light by which some idea may be formed as to its size and extent, and its possible communications. Syringing the cavity is contraindicated. It may cause suffocation or spread of the gangrenous process, which in broncho-pneumonia is, of course, a possibility.

Among the post-operative complications, hæmoptysis is not uncommon, especially after dressing, while secondary hæmorrhage is, of course, common. Plugging the wound is the best treatment for the last, ligature or forcipressure being difficult. Abscesses of the brain in these cases have been observed quite frequently without surgical interference.

The most common of all complications is secondary infection of the gangrenous cavity, with cough, fever, fœtor, and expectoration. Hæmorrhagic nephritis and cerebral embolism have been noted. The results of operative interference are not other than could be expected in such a grave condition, and the mortality is about 36 per cent. A definite cure is obtained in many cases, but it is hopeless to expect a cure in the gangrene, which ensues on a chronic pulmonary condition. The results in acute gangrene are, of course, good and lasting if the operation is successful, although some deformity—which may be great, as in one of Goodlee's cases—may take place.

The mortality of pulmonary gangrene untreated is about 75 per cent., and it is obvious that operation is indicated if possible. There are certain contraindications. Operation cannot be tried when the symptoms of gangrene are present without physical signs. The state of the opposite lung must be also taken into consideration before deciding upon operation. And, again, the presence of diffuse gangrene scattered in patches over the lung is a distinct contra-indication.

Operation is indicated when a definite circumscribed patch of gangrene is present. The seriousness of the general condition is not a contraindication—except so bad that death under the operation may take place—since this holds out the sole chance for recovery. Puncture and injection are quite insufficient, and may do more harm than good. Pneumotomy is the only chance, and and the mortality of the operation is already on the decline.

Acute Appendicitis.

Russell, in the London Medical Lancet, concludes a valuable article as follows: 1. Certain appendices are so formed anatomically that they of necessity give rise to trouble. 2. Interference with the drainage of the appendix is an important factor in determining inflammation. 3. The occurrence of appendicular colic may be taken as a warning that dangerous anatomical conditions exist in connection with the appendix. 4. In all abdominal cases detailed palpation should be carefully and patiently carried out. 5. Too much emphasis must not be put on the site of pain or on superficial tenderness. Palpation should be directed towards the ascertaining actual condition of the diseased part. 6. Statistics show that in 90 to 95 per cent. of cases recovery ensues without operation and the chances against recurrence are as three to one or thereby. Therefore routine removal cannot be accepted as necessary. 7. Operate at once in any case with a history of previous attacks, also in all cases commencing with a rigor. 8. The chief difficulty lies in the early recognition of the cases in which the appendix will necrose or perforate rapidly. In this connection suspect cases which show constitutional disturbance with little inflammatory reaction around the cæcum, but with marked tenderness on deep palpation and an ordinary degree of leucocytosis. 9. In cases which do not call for immediate operation pain may be relieved by hot or

cold local applications and by a cautious and sparing use of opium or morphine or of belladonna. Lavage may give good results. 10. Medical treatment should not be relied on for more than from twenty-four to forty-eight hours if severe pain continues or an acute tenderness on deep palpation still remains. 11. Later in the disease a continuance of the local and general symptoms, along with a high leucocyte count, indicates the presence of pus and the necessity for operative intervention.

Early Operation in Tuberculosis of the Kidney.

Kummell, in the Archiv fur klinische Chirurgie, states that renal tuberculosis is always secondary, and that operative measures seem comparatively hopeless. Baumgarten's experimental work on animals shows that the spread of tuberculous injections follows the route of the gland secretions. We know now that in tuberculosis of the urinary system the primary seat of the trouble is the kidney, and that from there the ureters and bladder become gradually infected. While recognizing the possibility of an ascending infection of the other kidney from a secondarily diseased bladder, he thinks it unlikely. Tuberculous disease of one kidney is by far more frequent than in the double sided disease.

The cystoscope shows small ulcerations around the opening on the diseased side.

A secondary bladder tuberculosis is best treated by removal of the diseased kidney.

It is most important to establish an early diagnosis of tuberculosis of the kidney. It, however, often remains for a long time latent, and bladder symptoms may be the first ones noticed.

Very often a cloudy urine will call the attention of patient or physician to the urinary organs before there are any subjective urinary symptoms. Sometimes the only symptoms complained of are of a general nature, weakness, loss of appetite, etc. Every bladder catarrh, not gonorrheal, nor due to outside infection, is very suspicious of tuberculosis. Frequently bladder symptoms in females are interpreted as being due to uterine displacements, etc. Gonorrheal infection is looked upon as paving the way for tuberculous infection.

While it must be admitted that tubercle bacilli cannot always be demonstrated, e. g., where a located focus does not communicate with the pelvis, nevertheless their demonstration remains our surest diagnostic measure. Cystoscopic and ureter catheterization are, however, the only means at our command for locating the tuberculous lesion. Indigo carmine surpasses methylen blue as an aid in catheterization.

Ureter catheterization is of importance, not only to locate the diseased kidney, but equally so as a means of estimating the functionating power of the other one.

The use of eucaine and antipyrine solution, with or without the use of morphine, is always sufficient to overcome the sensitiveness of even inflamed bladders. The determination of the freezing point of the urine is deemed of the utmost importance in estimating the function capacity of the kidney. The prognosis of kidney and bladder tuberculosis, both as concerns the immediate operative result and the ultimate result, is more favorable the earlier the operative treatment is resorted to. The author reports 48 cases, 43 nephrectomies with five deaths; 32 of these are still living, after a period varying from one and a half to fifteen years.

The Ubiquity of the Tubercle Bacillus and the Disposition to Phthisis.

Fluegge (Deutsche Medizinische Wochenschrift) says that the tubercle bacillus is not ubiquitous and quotes the following researches: Gaffky examined fresh moist sputum from the street with negative results, the day-sputum of dispensary patients rarely showed the bacillus. Gotschlich made repeated examinations of dust collected from waiting rooms of depots, hospitals and public buildings, but tubercle bacilli were never found. Heymanns made numerous examinations of living rooms of consumptives, but bacilli were rarely found. Praussnitz examined the sweepings from the steps and floors of railway carriages, but in only two instances were bacilli found and then in the sweepings from carriages in exclusive service for the transportation of consumptives.

These results have been made possible by the use of sputum cups and handkerchiefs for the reception of sputum. Occasionally threads carrying dried sputum become detached from handkerchiefs and clothing and find their way into the air, but never reach a degree of concentration sufficient to become a source of infection except in the immediate vicinity of the patient and then only when continuously inhaled; e. g., by living with a consumptive.

Preysz delivered a spray of diluted tuberculous sputum to rabbits and found that the inhalation of forty bacilli did not cause infection, only when the number reached 80 to 120 did this follow.

A second source of infection are the droplets of sputum thrown into the air by coughing, but here also danger of infection is practically limited to the immediate vicinity of the patient. The milk and butter of tuberculous cows are a third source of infection. It is assumed that all milk from public creameries is contaminated and 10 to 15 per cent of the butter, but infection from

milk and butter is probably rare. With the recent statement of V. Behring that infection is limited almost exclusively to children and to cows' milk as a source. The author says that this is disproved by the increasing incidence of tuberculosis with advance in age; the higher mortality from tuberculosis among men than women: the influence of occupation on the mortality from consumption; the acquisition of consumption during the late years of life; the occurrence of consumption in men who have never used animal milk as a food; the fact that in communities where children are nursed at the breast and rarely receive animal milk tuberculosis is not less frequent than in communities where cows' milk is almost exclusively used; the frequency of tuberculosis in countries where animal (cows') milk is never used as a food or does not exist.

From the three acknowledged principal sources of infection how often does infection occur? We look in two directions for an answer: (a) The results of all autopsies, death from all causes. (b) The tuberculin test.

Autopsies. In 100 autopsies Schlenker found tuberculosis, healed or active, in 66 per cent.; Naegeli (500 autopsies) 93 per cent.; Schmorl and Burkhardt (1,400 autopsies), 91 per cent.

Tuberculin. Franz subjected the men in apparent health of two Austrian regiments to the tuberculin test and obtained a reaction in 68 per cent. From these observations it follows that practically 100 per cent. of the human race are infected by tuberculosis, either latent or active, but from this it does not follow that the tubercle bacillus is ubiquitous and that escape from infection is impossible. When one remembers the frequency of consumption, known and unknown, and the constant exposure to infection from intimate contact with consumptives, (living together, social and business intercourse) the infection of practically 100 per cent. is adequately accounted for without assuming that the tubercle bacillus is everywhere present.

Infective Myositis.

Abram, in the London Medical Lancet, gives the classification of muscle diseases from Lorenz, and reports two very interesting cases of infective myositis.

A. Suppurative varieties: (1) Traumatic; (2) by extension; (3) metastatic; (4) infective myositis.

B. Non-suppurative varieties; (1) Polymositis, dermatomyositis, polymositis hemorrhagica, polymositis with erythema multiforme; (2) neuromyositis; (3) myositis in connection with joint lesions; (4) myositis tuberculosa; (5) myositis syphilitica.

C, Varieties with special terminal lesions: (1) Muscle scars, myositis fibrosa; (2) myositis ossificans,

The most recent work has shown that the suppurative varieties of myositis have been caused by the following germs in the following order of frequency: Streptococci, staphylococci, pneumococci, bacillus typhosus, and bacillus mallei. Lessened resistance to infection from exposure to cold and exhaustion will naturally predispose to these lesions, and the hemorrhages known to occur in over-worked muscles will afford a definite localizing influence to excessive muscular action.

Brunon's list of muscles affected in infective myositis runs as follow: Pectoralis major, deltoid, triceps and biceps, psoas, quaudriceps, and the gastrocnemius. In both of the cases reported the pectoralis major was the muscle affected. The inflammatory process attacks the interstitial tissues first. In acute cases fever is generally noted—a point of some importance in the diagnosis of muscular rheumatism. Attention will be drawn to the muscle or muscles by their becoming swollen and becoming gradually shortened when the whole belly thereof is involved; in other cases nodules may be found. The skin may or may not show edema. When edema is present the underlying muscle change is difficult to detect. Pain is a marked feature, and is generally increased on movement stretching the affected muscle. Limitation of movement naturally is present, partly due to dread of pain, but also to contracture induced by the irritation of sensory nerve fibres passing through the inflamed area.

The treatment is speedy incision into the affected muscle even before definite abscess formation is perceptible. Anti-streptococcic serum and general supportive measures are also advised. The first case healed slowly after operation; the second case is reported complete, since it represents a typical case:

"I saw the patient (a single woman), aged forty-five years, on September 4, 1904, with Dr. Mary Birrell Davies. She was evidently deeply poisoned, the face was livid and the expression was dull. The pupils were dilated. The temperature was 103 deg. F. and the pulse was 140 and very soft. The heart and lungs were normal. There was marked edema of the skin over right upper chest, limited very definitely below by the anterior fold of the axilla. A few scattered erythematous areas were also noted. No glands could be felt in the axilla. The shoulder joint seemed to be intact. Mr. Douglas Crawford cut down upon the pectoralis major later in the day, and on opening the sheath of the pectoralis

muscle found suppuration in it, but no definite abscess formation. The inflammatory process had extended along the sensory ligaments of the breast. The patient succumbed a few hours later. Dr. Davies has very kindly written some notes bearing on the early history. The patient thought she had had a chill, as she was 'shivery' on August 29 and 30. On the 31st, when Dr. Davies first saw her, the temperature was 101 deg., the pulse was 110 and full, and there was pain in the right upper chest, the arm being kept closely to the side and movement being resisted. The first trace of edema over the muscle was noticed on September 3, and on the 4th death occurred, within a week after the initial shivering."

Acute Dilatation of the Stomach.

Hoffman, in the Munchner Med. Woch., says that dilatation of the stomach is a rare condition, the diagnosis of which is often attended with difficulty. The etiology factors fall in two general classes. Those acting through the general nervous system and those acting locally. In 1868 Eramaun reported the first case, a young man who had fallen and received an injury to the head. Since then several cases have been reported from Germany, America, England and France.

The patient considered in the present discussion was a young man of 17 years; the family history was negative, he had always been a "hearty eater," in spite of which he was poorly nourished. It was said that he ate three or four times as much as his brothers and sisters. In eating he swallowed the food, having scarcely masticated it at all. At no previous time had he complained of "stomach trouble." The attack began with a feeling of lassitude of a few hours duration, followed by an intense pain in the epigastrium and severe vomiting. Food which he attempted to eat was not retained. He was sent to the hospital with a diagnosis of intestinal obstruction; his condition was one of collapse; the abdomen was distended with a large area of dullness in the epigastrium and left hypochondrium. In the hospital the case was thought to be one of encapsulated peritonitis, and a laparotomy was decided upon. When the abdomen was opened the stomach was found enormously distended, reaching nearly to the symphysis. The stomach was opened and six quarts of dark brown fluid removed, containing pieces of cucumber.

There was no obstruction at the pylorus. The stomach contracted soon after the removal of the fluid. A gastrostomy was made, but the patient died a few hours after the operation. A partial post-mortem examination was made. The serosa of the stomach was pale, with here and there a small area of injection; the fundus was quite thin; in a few places were noticed small blood streaks across it, especially about the pylorus. The intestines were negative. The head of the pancreas showed a few small areas of necrosis.

The writer mentions the incorrect diagnosis; had the correct diagnosis been made no operation would have been done, but the contents would have been withdrawn with a siphon tube. It seems from a review of the reported cases that such failures in diagnosis have attended a large number of them. In this case it was not possible to say if a dilatation was present before the acute condition arose or not. He is inclined to think there was a chronic atonic condition, and that the toxic effect of the cucumber precipitated the attack by a local action on the stomach wall or through the nerve endings there.

Subcutaneous Injection of Gelatin.

Moll (Med. Press and Cir.) at a recent meeting of the Bohemian Medical Association, related his experiments on guinea pigs and dogs with intravenous injections of gelatin. The writer found that the fibrin of the blood was greatly increased, while the agglutinating power of the red blood corpuscles prevented extravasation. Other albuminoid substances injected, or applied subcutaneously, increased the fibrin, which also favored coagulation. The action of gelatin declared itself within twelve hours, and not beyond twenty-four hours after injection. It is calculated that the blood contains three to four times as much fibrin after this period for three days as is found in the normal condition. Taken by the mouth gelatin has no such effects. It may be mentioned also that sterilization does not destroy the powers of hemostasis, thus pointing to the practical application of gelatin as a valuable method of treating obstinate hemorrhage, although the effects cannot be expected immediately. In practice it may be valued more as a prophylactic than an immediate hemostatic. It may be noted that the subcutaneous injections and increase of fibrin in the blood do not disturb the digestive organs. Moll exhibited coagula to the members, which substantiated his description of agglutination and thickening of the blood. At a general rule, when any albuminous body is injected subcutaneously, leucocytosis is produced along with the increase of fibrin.

In the discussion Imhofer said that he had employed gelatin subcutaneously with the best results for local hemorrhage, such as in epistaxis. The author found it excellent when applied locally with pledgets of carbolized lint to a bleeding surface. Munzer thought that the danger of injecting gelatin

should not be underrated. Besides the weakening effects that usually followed, literature was not without its example in post-mortems, where *exitus lethalis* followed suddenly after the injection of gelatin for aneurism. Nonne, of Hamburg, has put on record a good example as a warning, where a young man, full blooded, exhibited a slight pulmonary hemorrhage which induced the attendant to inject gelatin. The man died suddenly, and in the lung were found a few emboli which had been the cause of death. If every drug and method of treatment has failed, gelatin may be resorted to as a last resource.

Surgical Procedures for Infantile Paralysis of the Lower Leg.

Dane and Townsend (Journal of Orthopœdic Surgery) say:

1. That in all cases where an attempt was made to restore the balance of muscular power by means of a transference of either the peroneus tertius of extensor longus hallucis, the transported muscle has failed to hypertrophy to an extent sufficient to cause any benefit. (Eleven such cases fail to show any improvement).

2. That simply shortening the extensor tendons in cases of equinus, even aided by transplantation of the flexor longus hallucis, is of no permanent benefit. (Two operations, both followed by relapse).

3. That where the peronei are inserted into a paralyzed tendo Achillis for the relief of calcaneus, the result is usually disappointing. (Five operations, the result in four being poor).

4. That in cases where the peronei are transplanted to the inner side of the foot for the correction of a valgus deformity, the results are slightly better, but there are relatively few successes. (Six operations. Two results were poor, two fair, and only two good).

5. That where a portion of the tendo Achillis is transplanted to the extensor side of the foot for the relief of equinus, the condition is distinctively improved.

6. That the best results following tendon transplantation seen in cases where the whole or a portion of the anterior tibral was transferred to the outer border of the foot for the relief of equino-varus.

7. That astragalectomy uniformly yields a good useful foot.

8. That the results of orthrodesis of the tibio-astragaloid joint are as a rule excellent.

Suppurative Myositis Caused by the Gonococcus.

Harris and Haskell (Johns Hopkins Hospital Bulletin) say that gonorrhea was looked upon by the older writers as a local disease, but since the successful culture, by Bumm in 1885, of the gonococcus enabling us to identify it in other structures it has been found that systemic infection is by no means rare, and that any tissue of the body may be invaded. Muscular involvment is not of common occurrence, though a number have been reported in the literature, brief abstracts of which are given.

The case reported is that of a woman 34 years of age, who had a lump of four weeks' standing on the calf of the right leg. Later its site was replaced by a diffuse swelling. There was pain in the part, but no involvement of the neighboring joint. Another swelling was found at the junction of the sacral and lumbar regions, which had been there for about four months. It was about the size of a hen's egg. Pus of cream-like consistence was obtained by aspirating the swelling on the right leg. Cover-slip preparations stained with methylene blue and gentian violet showed a number of single cocci and diplococci outside of the leucocyte, all staining well and decolorizing by Gram. The abscess in the back contained the same germ. The evacuation of the pus, followed by swabbing with carbolic acid, cured the local trouble.

The patient during convalescence was particularly questioned in hopes of eliciting evidence of symptoms pointing to gonorrheal infection, but beyond the knowledge of a leucorrhea of long standing and occasional attacks of pain and burning while passing urine, nothing of a definite nature could be obtained. She stated that at no time did she notice any trouble in or about her joints or tendons. The swelling appeared directly in the regions affected.

The Present Status of the Lorenz Method of Reduction of Bilateral Dislocation of the Hip.

Galloway (Canadian Journal of Medicine and Surgery) states that many cases of congenital dislocation of the hip are intrinsically incurable owing to anatomical obstacles which are hopelessly beyond the surgeon's control. The acetabulum may be too shallow to retain the head in position; the head and neck of the femur may be so imperfect or deformed as to be quite unsuited for articulation; or there may be such contraction of the soft tissues as to form an insurmountable obstacle to reduction. The x-ray is of great value in many cases in determining the actual anatomical conditions.

Subcutaneous or open division of tendinous muscular and ligamentous tissues which obstinately oppose reduction may be resorted to with benefit in certain cases when reduction by manipulation alone is impracticable.

In about 10 per cent of the cases treated by the Lorenz bloodless method, a perfect

anatomical and physiological cure will be obtained.

In some of the cases of apparently perfect cure, redislocation may occur even several months later. A repetition of the operation will be followed by ultimate success in some of these relapsed cases.

In probably 60 per cent of the cases treated by the Lorenz method a true anatomical replacement is not secured, but an anterior transposition of the head of the femur is brought about. In a considerable proportion of these cases the condition of the patient is greatly improved, the shortening being diminished, the limp lessened, and the characteristic deformity largely or completely obliterated. In a word, there is a large and distinct functional gain.

The ideal age for operation is from three to five years. Under three years of age replacement is easy, but the difficulty of keeping the plaster dressing from becoming very foul is almost insuperable. After five years reduction is often very difficult, but success may sometimes be attained up to the age of thirteen years and even beyond. Within reasonable limits the age of the patient *per se* has less to do with success or failure than the anatomical conditions in and about the joint in the individual case. One may fail in a patient of seven years and succeed in another of ten or twelve.

The operation usually is perfectly safe. Accidents have occurred, however, both in the hands of Lorenz and other surgeons. The possible accidents are thus summed up by Ridlon: Paralysis from overstretching; fracture of the neck of the femur; fracture of the shaft of the femur; fracture of the ramus of the pubes; fracture of the ischium; tearing of the perineum; rupture of the femoral artery; gangrene from cutting off the circulation through stretching the femoral vessels.

Enlargement of the Spleen Simulating a Pelvic Growth.

Sturmer (Brit. Jour. of Obst.) states that such a mistake is possible. He gives the history of this case: Elsie E., aged twenty-five years, multipara, native of India, was admitted to the Government Maternity Hospital, Madras, June 30, 1904, complaining of a painless swelling of the abdomen, which had existed for sixteen months. She had not menstruated in two years and four months. Micturition was normal. She had gradually lost flesh. There had been fever off and on for a year previous to her marriage, and occasionally afterward. Malarial fever was very prevalent in the woman's home. At the time of admission to the hospital the patient was well nourished, not anemic; bowels regular. Pulse 108, temperature normal. The abdomen presented considerable enlargement; a large irregular mass was found to occupy the right iliac and lumbar regions encroaching upon the left side, extending from the pubes to three fingers-breadth below the ribs. It filled more of the right side of the abdomen than the left. The tumor was hard and freely movable, especially toward the right side. A distinct fluid thrill could be elicited in both flanks. It could not be determined whether this was in the tumor or free in the peritoneal cavity. There was dulness all over the tumor, but the flanks were tympanitic. The hand could easily be passed under the ribs over the top of the tumor, and could be made to pass underneath it, therefore it was decided that it did not take its origin from above. Vaginal examination was practically negative. On opening the peritoneal cavity some fluid came away, and a bluish-red mass presented. On passing the hand into the right iliac fossa the splenic notch could be made out, as it rested upon the right ilium. Above the spleen did not pass under the ribs; incision was therefore enlarged, and finally the spleen was delivered. The pedicle was long. The splenic artery was about the size of a goose-quill, divided into two branches before entering the spleen, and these two branches were first tied, and then the main vessel ligatured. Finally the spleen was cut away. The appendix was found to contain a round worm—not an uncommon experience; it was cut across and the outer portion of the worm removed. The spleen weighed four pounds three ounces, and was remarkable for the number of notches,—three or four deep cuts at its edge,—near the usual notch. On leaving the hospital the patient was strong and able to walk about, to all intents in good health and had gained considerably in weight.

The Infection of Physicians by Syphilis.

Blaschko (Berl. klin. Woch.) says that three conditions must be differentiated from chancre about the finger herpes, anatomical tubercle and the soft chancre. Herpes in most instances may be readily enough distinguished, but more difficulty is encountered in the presence of the other two. In some cases the primary lesion may be small, causes little disturbance and heals rapidly without forming a scar. In these cases the development of general symptoms or an indolent bubo first calls attention to the disease. In one case there was absolutely no evidence of external infection, and the writer thinks that this may be one of a class where the primary lesion is never developed and where it is possible that the infection took place through an insect sting. The chief source of infection seems to be wounds, either accidental and unnoticed, or made by

the puncture of instruments used on syphilitic patients. Hang-nails are a frequent source of infection when making gynecological or other examinations, or when attending syphilitic women during an abortion. The writer thinks that there is no absolute way of preventing infection. The vigorous scrubbing which is indulged in before operation is a frequent source of wound production, and where the skin of the hands is very tender it should be avoided and washing with marble soap without a brush be deemed sufficient. Moreover, it is better to avoid carrying virulent germs about on the hands, by a thorough cleansing after operation on an infectious case. The use of rubber gloves is also warmly recommended. Small wounds should be carefully cleansed and painted with a two or three per cent. solution of nitrate of silver. Suspected punctured wounds may be treated with tincture of iodine. He does not agree with the generally accepted theory that extragenital syphilis is more severe than the other type, and none of his patients developed any complications. Treatment should never be instituted on mere suspicion, but the appearance of characteristic signs should always be awaited. The question of stopping his practice is a most important one, but if the proper precautions are observed there is no reason why an infected physician need cease to work. Otherwise he must observe the same restrictions as are incumbent upon other individuals.

Polycythemia and Splenic Tumor.

Weintraud (Zeitsch. f. klin. Med.) says that the majority of patients that come under his observation were males, usually in middle life. An etiological factor could not be discovered and it is almost certain that alcohol, syphilis or malaria play no role. The subjective symptoms may be divided into those due to deficient blood-supply of the brain (attacks of unconsciousness, headache, vertigo, tinnites, vomiting and general depression) and into those caused by the enlargement of the spleen (pressure in in the left hypochondrium, pains. due to perisplenitis, gastric and intestinal disturbances). The most prominent objective sign is the cyanosis. The color of the skin is not, however, blue but more of a violet, and suggests pronounced hyperemia. The mucous membranes of the lips, tongue, gums and vocal cords are usually of a dark cherry-red. The spleen is often so large that a leucemia is first suspected. In the few cases with autopsy notes only a simple hyperplesia of the spleen could be detected but in one instance tuberculous changes were sound in this organ. It is extremely doubtful, however, that this has any bearing on the condition, for many similar lesions are reported without blood changes. The liver is often enlarged and of soft consistency. The most characteristic change in the blood is a marked increase in the number of red cells and the percentage of hemoglobin. The highest figures recorded are 12 million for the former and 200 per cent. for the latter. The red cells rarely show morphological changes and the leucocytes are frequently increased, yet a differential count does not vary much from the normal. The specific gravity and dry residue usually fall within the normal limits while the amount of albumin may even be subnormal. Symptoms appearing later in the course of the disease are dyspnea, hydrops and albuminuria of unknown cause since albumin is only present in traces, with at most a few hyaline casts. The blood-pressure was found increased by some, normal by others. A coincident uratic diathesis (gout, renal stones) is not rare, but probably due to the continuous leucocytosis with its increased breaking-down of nuclein bases. A rational therapy does not exist, but good results frequently follow repeated venesections. Polycythemia may also occur without splenic tumor, but is then usually due to intoxication, with carbon monoxide or phosphorus, to congenital heart-lesions or to high altitudes. The true cause of polycythemia is not known, but probably the destruction of red cells does not go on as rapidly as in normal blood.

X-ray Treatment of Leucemia.

Ledingham and McKerron, in the London Medical Lancet, report the results of their treatment of splenomedullary leucemia occurring in a boy eleven years of age. The splenic enlargement was enormous and the blood picture was absolutely typical. The abdominal distention was marked, the lower border of the spleen reaching to within a finger's breadth of the pubes. There were 3,570 red cells per cubic millimeter, 2,304 white cells, hemoglobin 80 per cent. The temperature was elevated when the boy was admitted to the hospital, but after staying in bed for a day or so, it became normal. It was noticed that this occurred every time that the patient was allowed to get out of bed. Arsenic was badly borne and had to be given up. For the one and a half years previous to the time that he was in the hospital wards, there had been but little change in the boy's general condition except for the fact that the spleen had grown larger. During the six months prior to X-ray treatment, the blood showed the following average count: White cells 200,000, with variations of 40,000 on either side, red cells 3,300,000. The ratio remained at the fairly constant figure of one to 15. Hemoglobin percentage taken by Haldan's instrument

remained fairly constant at about 55 per cent. The result of the differential counts are given in the paper in the minutest detail. Following Senn's methods, the rays were applied over the spleen and the lower epiphysis of the femora. The exposures lasted ten to fifteen minutes every other day. Through three months of treatment, no constitutional effects at all were noted aside from a slight prickling sensation. This condition was in marked contrast with those produced in the cases of Senn and Bryant. The curves presented show that the leucocytes came down in six weeks to 23,000. The red cells during June, July and August averaged 4,500,000. The hemoglobin, however, remained stationery. It must not be forgotten that arsenical treatment may produce similar changes. Extraordinary as the results of the rays were upon the blood picture, they were even more so in their action upon the general condition of the patient. From having been bedridden, he was within a month able to go up and down stairs. At the beginning of the treatment, his maximum girth was 32 inches. On September 24 it was 26½ inches. There was a corresponding gain in weight. The following theories have been suggested to explain the mode of action of radiotherapy in leucemia. Senn believed that his results were due to antiparasitic action, and if Lowit's views on the etiology of leucemia are correct, this may seem plausible. Mosse and Milchner, working with rabbits found alterations in the lymphoid and myeloid elements of the marrow under the X-ray. The experiments of Joachim and others would seem to show that all the bone-marrow in the body would have to be exposed to the rays in order to produce results. Finally, Lepine and Boulav have shown that enzymes can be influenced by the rays, and since Ehrlich holds that an enzymes may be responsible for the condition, it is possible that its destruction prevents the further influx of leucocytes into the system.

Alcohol.

In a discussion before the Atlanta Society of Medicine, a few weeks ago, on the Uses and Abuses of Alcohol, from the physicians standpoint. The subject was opened as follows by Dr. Hobbs, of Atlanta:

Mr. President:—To say that there are two sides to every question, would almost be a tautology, else why the question ?

"The use of alcohol" when considered in all its phases, is a broad subject.

It certainly has many view-points; the socialistic (as a beverage) and when abused the immoral; the scientists point of view, and in pharmacy; and then as a therapeutic agent—a remedy in disease.

Were it practical, were it feasible, were it possible, then it would most assuredly be advisable to abolish it entirely in the first instance, where we view it only from a socialistic point of view, since no doubt the greatest good would thus come to the greatest number. We would probably never suggest that alcohol should be eliminated from the pharmacopeia, as it is as necessary in extracting the active principles of many herbs, as is the smelter in getting the pure gold from quartz. Then the pharmacist must use it in its diluted state, in the most of his tinctures, and when we prescribe tinctures, we give alcohol whether we would or not.

And yet the main question remains—shall it, or shall it not be used in disease? Is it, or is it not a therapeutic agent, to be prescribed under any circumstances? Shall it be blotted out of our armamentarium?

Will it not be acknowledged that the next generation of physicians will probably know more about the use of alcohol in disease than we do now, although it is true that we have before us the results of many scientific and trustworthy experiments of the use of alcohol on the lower animals, mainly from a physiological viewpoint. Yet occasionally, even the pathological is considered. But should we not remember that most of the lower animals are either carniverous or herbiverous, and those that are omniverous have the instinct that God has given them to govern them, in the time and limit of their ingestion.

But what about the omniverous man, to whom God has given reason instead of instinct? Does he not soon forget to use his reason, when the instinct of the lower animal is as true and invariable as the needle to the pole? So is it not here that the difficulty in the parallel comes in making our deductions?

Any drug that does not exert a potency for evil, cannot effect a good, and any drug that can exert a potency for good, can also do an evil when misused. Then can it be denied that the converse of this is also true? Any drug that has the power to do evil, could within the limits of its lethel dose, be utilized for good. Nor is this based on the "Simiac Similibus Curanter" hypothesis.

If a coal of fire pops out on your Persian rug, do you put out the fire in the grate? Would you rather not apply a screen? Do you build a fire in the grate every day in the year, or are you governed by the heat and cold in the room as to the quantity of fire in your grate, or as to whether you have any or not?

I grant you that this is a broad parallel, yet it is suggestive of the idea.

Then should alcohol, as a potential factor in therapeutics, be discarded from our ar-

mamentarium, as we do not yet know just when and where and how much of it can be used to advantage.

The fly wheel of the clock is as necessary as is its governing wheel to its mechanism.

The heart, the most wonderful of all pumps, needs its stimulating, as well as its inhibatory nerve. The clock would run riot but for its governing wheels, and chaos would follow in this wonderful mechanism of anatomy, but for its nerve of inhibition.

The two eyes do not see a cube alike, but the composit picture on the sensorium gives the idea of solidity, but for the one, the other would not reach the truth.

All nature suggests a medium between the two extremes. 'Tis a trite saying that "Cranks must be born, that reformers may live," but of course, we have no cranks in our profession, we only have some extremists. But are they as necessary to us, as is the fly wheel to the clock, or the stimulating nerve to the heart?

The physician who starts out with the preconceived idea that he will prescribe alcohol only in rare cases, will naturally find even in a large clientel, that such cases appear less and less frequently until he concluded that there are no cases in which he can prescribe it to advantage. And is not the converse true? He who begins with the idea that alcohol is a potent therapeutic agent in many diseases will as naturally find them more and more frequently as the months and years pass on.

Then in conclusion, could we not agree to abolish this potent drug in its socialistic, in its beverage, in its immoral bearings, in so far as we can find it feasible and practical?

Let us leave it permanently in the pharmacopea for the scientist and the pharmacist. But can we afford to discard it from our armamentorium, until we know that its bad features overbalance its good, as a therapeutic agent?

The Action of Roentgen and Radium Rays.

Scholtz, in the Deut. med. Woch., discusses the therapeutic action of Roentgen and radium rays. The latter, he says, possess a great advantage over the former, in that they can be applied more easily in certain parts of the body. The writer mentions lupus of the mucous membrane of the hard and soft palate. The part may be exposed to the action of the radium for a considerable time before the mucous membrane is seriously affected, and he therefore chose to apply the rays for fifteen to thirty minutes; the neighboring parts are treated one after another for the same time, and after a pause of from one to two weeks the affected part is again treated. In three or four weeks the granulations of the lupus patches begin slowly to disappear; while, after intense treatment, superficial ulceration follows, which rapidly heals up in a few weeks. The ultimate result in nearly all cases is a normal-looking mucosa. He further reports on the result which he has obtained in a case of carcinoma of the skin. With the exception of a small area of about the size of a pea the growths became entirely absorbed, and he states that one is justified in speaking of a clinical cure of the case. The patient was a man of 60 years, who had noticed that the carcinoma began a few centimetres below the right eye some seven or eight years previously, and gradually has spread to the outer and inner canthus. Five years previously the growth had been incised and the skin defect covered by transplantation. The growth recurred two years ago. All the local and general treatment that was tried failed to arrest the growth. At the time when the radium treatment was begun the skin below the right eye was completely infiltrated, and was firmly adherent to the bone. All the parts were treated by fixing the radium capsule to the skin by means of strapping for ten to fifteen minutes, with the exception of the inner corner of the eye which was treated for half an hour, the radium being placed about $\frac{1}{2}$ cm. away from the skin. A portion of the affected part was treated every second or third day. The result was obtained in five months, and the skin became soft, flat, and freely movable from the deeper tissues. Only at the inner canthus is there any carcinomatus tissue left. He believes that this result will remain a permanent one, and bases these hopes on two other cases which he treated three-quarters of a year ago, and which have remained free from recurrence. The author compares the results with radium and Roentgen rays, and pays some attention to the histological changes in the tests after exposure to both kinds of rays.

The Prognosis of Epilepsy.

Turner, in the Edinburgh Med. Journal, says that sex plays little part in the general prognosis of epilepsy. It appears that a larger percentage of women escape the deteriorating influence of epilepsy upon the mind than men, but that when dementia supervenes and reaches its most pronounced form, a somewhat higher percentage of women are affected. A family tendency to either epilepsy or insanity materially increases the likelihood of the disease becoming confirmed, and the supervention of dementia. Epilepsy beginning in infancy and childhood is the least favorable for arrest of the fits and the most favorable for the production of the confirmed disease. The common type of epilepsy, or that com-

mencing during puberty, is the most favorable form of epilepsy, both as regards the arrest of the seizures and the absence of mental infirmity. Adult epilepsy is unfavorable, but senile epilepsy is tractable. In general, the earlier a case is brought under systematic treatment, the more hopeful the prognosis and the greater the probability of improvement. The longer the interval between the attacks, the greater the prospect of arrest or improvement. Major attacks are more readily influenced by drugs than the minor seizures. Remissions are a frequent, if not a characteristic feature of this disease. Long remissions may occur under bromide administration, to be followed by a relapse when the drug is omitted. Again, a remission of long duration may be broken by an accidental circumstance, such as a fall or a blow on the head. Thus, long periods of arrest, though as a rule indicating a favorable prognosis, are not synonymous with the cure of the disease. It may be said that epilepsy is sometimes cured. The writer regards it unsafe to consider any case cured in which the seizures have been in abeyance for a period less than nine years after the disease has become satisfactorily established. A very small percentage of cases do relapse after an arrest of nine years. If any given case of epilepsy is capable of improvement, a satisfactory response will be apparent within a short time of commencing treatment. He gives a series of cases of a total of 147, of which 15 were arrested for nine or more years, giving a percentage of 10.2 of cures.

Scurvy Rickets, with Spontaneous Fracture of Three Long Bones.

Raw, in the London Practitioner, states that the term scurvy rickets is in reality a condition of scurvy, often, no doubt, superadded to rickets, but in its nature distinct. It is known as Barlow's Disease in Germany. Such cases are of great importance to hospitals and practitioners, for grave allegations of neglect and injury may be made, as in this case, on account of fractures, which may be found without any apparent cause, The patient whose history is given here was two years old, and had always been fretful and irritable, and had cried out when handled. It had been fed since birth on proprietary foods, and had never had any boiled or sterilized milk alone. The post-mortem appearances in this case were those of a typical case of severe rickets, with scurvy superimposed. Over the left parietal and occipital bones was an enormous swelling, which incision showed to be a large collection of pale fluid blood under the muscles. Three other swellings were found—one over the neck of the left humerus, one over the center of the left thigh, and one in the lower third of the right tibia. In each instance an extensive subperiosteal hemorrhage was found, with complete fracture of the bone. The cancellous tissue of the bones was very vascular and softened. The gums were soft, friable and very spongy. The stomach was almost completely digested. The general condition of these cases is one of profound anemia. Ecchymoses may appear. The temperature is variable. The cause of the disease is uncertain. It is doubtless due to some defect in the diet. He has all milk for the hospital children sterilized slowly. The milk is raised to a temperature of 200 deg. F. and kept there for five minutes. The author has never seen the slightest symptom of scurvy among these children. Artificial foods and condensed milk seem sometimes to produce scurvy. So does peptonized milk. There is liability in a case of scurvy to the formation of large swellings, which are often mistaken for abscesses. Treatment is satisfactory if taken fairly early. The fresh element omitted in the diet should be provided. A powdery steamed potato, beaten into a thin cream or milk, is excellent. Lemon or orange juice, in one-half teaspoonful doses, is useful three or four times a day. A little raw meat juice, and ordinary milk, if it can be digested, are of value. Dover's powder will relieve pain. The child should be protected from the weight of the bedclothes and should have complete rest. It should not be handled or bathed any more than is absolutely necessary. Scurvy rickets is not so common as it was ten years ago, which is doubtless due to more rational and intelligent feeding and a better knowledge as to its prevention.

The Defensive Powers of the Body in Disease.

Muir (Glasgow Medical Journal) says that this subject may be considered in two parts, the first dealing with the histological changes visible with the microscope, the second with the subtle chemical substances in the cells and fluids of the body which aid in protecting the body and in curing disease. The chief cellular activities are included in the term phagocytosis. This includes the ingestion and digestion of bacteria within the cells. Not all bacteria which are ingested by the leucocytes are digested, they may even flourish and multiply within the cells. Bacteria which produce a local emigration of the neutrophile leucocytes will cause a neutrophile leucocytosis if the infection be sufficiently extensive; the converse of this statement is also true. With normally reacting tissues the leucocytosis increases with the extent of the infection. In infections in which leucocytosis is the rule the absence or diminution of

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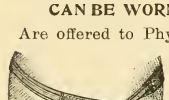

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such without improvement of the symptoms indicates severe toxæmia with interference with the supply of the defensive cells, or an inherent want of reactive power. With regard to the eosinophiles, whether the cells produced in excess act as direct phagocytes or indirectly produce some of the defensive substances, they evidently play an important part in the defense of the body. An abundant supply of leucocytes, free movement of the same, and a free flow of lymph favor local defense. The most important means of increasing phagocytic activity is supplied by active immunization or vaccination in the general sense. The defensive powers of the body, so far as the production of phagocytic cells is concerned, are sufficiently striking, but the antitoxic and bactericidal substances as ultimate weapons of defense, are more remarkable still. These and other antisubstances have this common property that they enter into chemical union with the substances on which they act, and show specific affinity in such combination.

The Treatment of Syphilis at Aix-la-Chapelle.

Levien (The London Practitioner) gives the details of the "cure" as follows: After rising in the morning between 7 and 8 o'clock, the patient takes two or three glasses of sulphur water, each of 200 grammes, with the addition of salts, which are prepared in the factory of the Aix-la-Chapelle natural spring products. Patients who are fairly strong then immediately take their bath, while weaker patients and more especially those suffering from affections of the central nervous system take a light breakfast and wait for their bath until two hours later. The temperature of the bath averages 95 to 98 deg. F.; but those with nervous diseases or alterations of the arteries are not allowed to take baths warmer than 92 to 94 deg. F. The duration of the bath varies from 5 to 20 minutes, according to the strength of the patient. In suitable cases which can endure a hardening process, cooling douches or irrigations are used in addition to the baths. After the bath the patient rests for 20 or 30 minutes, care being taken that he does not perspire too freely in the interim. Then, after the patient has had his breakfast (I am referring now to the more robust cases) he is inuncted. The process is carried out as follows: With the naked hand an experienced masseur rubs the requisite quantity of 33 per cent. blue ointment evenly on to the skin for a period of 20 minutes (hairy patients are previously shaved to avoid folliculitis). The following parts of the body are subjected in turns to inunction: On the first day the legs are rubbed; on the second, both thighs; on the third, the back; on the fourth, the abdomen and flanks; and on the fifth day the arms. These inunctions are repeated again and again in that order until the requisite number has been attained. Of course the inunctions may be so intensified that a greater extent of the surface of the body is daily smeared with a somewhat larger quantity of the ointment.

The ointment thus rubbed in is not removed with the towel after the bath on the following day, and thus every part of the body is at once exposed to the action of the unguentum cinereum until each section is again prepared for a fresh inunction. This preparation is effected by means of scrubbing with soap and water at a high temperature. The ordinary temperature of the water has no effect upon the ointment, which liquefies only at 113 deg. F.

In the rubbing, we are careful to avoid the axilla and the region between the scrotum and the thigh, because eczema might easily be set up in these situations. It is also essential to avoid pressure on superficial bones such as the shins and ribs. I generally order a glass of the thermal water to be taken both before the midday meal and before supper, as I find this has a stimulating effect on the appetite. During the cure, the teeth must be cleansed of morsels of food after each meal by means of a soft tooth brush, with a tooth paste of salol and chlorate of potassium. The mouth, also, must be rinsed with a solution of aluminum aceticotartaricum every half hour.

Relationship of Splenic Anemia to Other Blood Diseases of Childhood.

Shaw, in the London Medical Lancet, says that before attempting to answer any questions in this matter, it is necessary first of all to discuss the general conditions of

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the blood in healthy infants. At birth, the hemoglobin amounts to 100 or 104 per cent. This amount progressively falls to the third week, when it reaches 55 or 60 per cent. After this, it steadily rises until the color index is approximately one. At birth the leucocytes vary from 18,000 to 30,000. By the sixteenth day, they fall to 14,000, at the sixth month, 13,000. By the end of the first year, 10,000. At the sixth year from 7,500 to 9,000, a total of 30,000 leucocytes in a healthy child under three years of age after feeding is said to be far from rare. At about the twelfth day, the polymorphonuclear cells are 60 to 70 per cent. At the third year the mononuclear equal these. The conclusions of this paper are that there is no sharp line of demarcation between any of the pathological groups which have been dignified by special names. Clinical evidence, furthermore, fails to separate these maladies, and the same may be said of the blood examinations, except in the advanced forms of pernicious enemia and leucocythemia. A closer study of the lymphoid tissues throughout the body, and particularly of those elements lying within the reticulum of each tissue, is necessary. It is probable that in leucocythemia, the marrow is involved in every case, whether it be of a lymphocytic, myelocytic or of a mixed type. The spleen and lymphatic glands may or may not share in the hyperplasia of the lymphoid cells which normally occur there. By metaplasia, the lymphoid cells appear to give rise as in pernicious anemia to various forms of erythroblasts and erythrocytes. What provokes this hyperplasia is not known, nor is it understood why it should be more readily excited in the young than in adults. That this not infrequently occurs is vouched for by the occurrence of splenomegaly in the adult without profound blood changes, which condition is unknown in the infant. In view of the utter impossibility of reaching any definite conclusion which is based upon clinical evidence or laboratory findings, it is undoubtedly justifiable to hesitate to attempt to differentiate between lymphatic leucocythemia and the splenic anemia of infancy.

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"Potato" Tumors of the Neck and Their Origin as Endotheliomata of the Carotid body, with an Account of Three Cases.

Gilford and Davis (The London Practitioner) state that the occurrence of these growths in one particular region of the neck and in no other part of the body suggests that they must spring from some structure which is peculiar to this area. This particular growth is not an epithelioma, but an endothelioma. It is a tumor of the carotid "gland." Marchand first pointed out the exact origin of these growths. They report three cases of such growths which were noted in middle-aged or old men. The tumors were apparently of a high degree of malignancy, and rested upon the carotid arteries at the bifurcation. The position, relation to the carotid arteries, and penetration of the carotid sheath at the point of bifurcation all points to an origin from a structure situated in this neighborhood, and this structure is the carotid body. This body, as described by Marchand, is of the size and shape of a grain of rice, and is situated within the fork of the bifurcation of the two terminal branches of the common carotid. It reaches full development and permanent size in the sixth month of fetal life. Its anatomy somewhat resembles that of the hypophysis cerebri. It is glandular in nature, but has no ducts, and though it contains many nerves, it is not a ganglion. It is a mesoblastic structure, and its development is closely associated with that of the carotid artery. Between the vessels and nerves with which it is supplied there are masses of endothelial cells, of round or irregular shape, sometimes much like the acini of a gland. The function of this structure is unknown. The evidence seems fairly complete that the "potato tumors" are endotheliomata of the carotid body. As a rule, these tumors are looked upon as tuberculous, lymphomatous, or malignant glands. The best treatment is complete removal at the earliest possible date. It does not seem likely that this growth could be completely removed unless the vessel were taken away at the same time. This operation would be more likely to succeed if a temporary ligature were placed around the common carotid artery a week or so before the removal of the tumor, in order that a sufficient blood-supply to the brain would be ensured. The other alternative is the destruction of the growth by caustics. The former method, however, is preferable.

Fracture of the Elbow in Children, and its Treatment.

Laporte (La Medicine Moderne) says that the lower extremity of the humerus is most frequently involved. Farabœuf in 1886 confirmed the theory put forward by Schmitz, of Dublin, that in new-born children the lower extremity of the humerus corresponds entirely to the epiphyseal cartilage, the diaphysis ending above the level of the condyles. After the second year a centre of ossification appears at the level of the humeral condyle of Chaussier and the diaphysis neuroses vertically and transversely, the internal portion being greater than the external. Whatever opinion is held in regard to this point, it is certain that a supracondylar fracture is a bony fracture, and cannot be looked on as an epiphyseal displacement. The fracture presents two varieties—the oblique fracture of the humeral condyle of Chaussier, and the supracondylar fracture. According to Kocher and others, the first is the more common. Oblique fractures are on the external side, and run from above downwards and from without inwards, involving the trochlea to a greater or less degree. The displacement is as follows: The external fragment is carried upwards and outwards; an increase is noted in the transverse diameter of the elbow, with more or less swelling and ecchymosis, and abnormal movement and crepitation may perhaps be obtained. Kocher has shown that the outer fragments may undergo solution transversely, so that the articular surface is turned forwards or even upwards, rendering replacements very difficult. The fracture is the origin of cubitus valgus.

Acetone Poisoning After a Celluloid-Mull Dressing.

Cossman (Wochenschrift) reports a case of a 12-year-old boy with tubercular hip-joint disease, was placed in a celluloid-mull dressing to permit him to walk about. A few hours later the boy was found in deep coma, almost pulseless, noisy respiration, cold, clammy skin and widely dilated pupils, which did not react. The first symptoms shortly after applying the dressing were restlessness, itching of the leg and vomiting. Under hot applications, artificial respiration, and normal salt solution injections, the symptoms gradually disappeared. Cossman attributes the symptoms to acetone poisoning, and believes it to be the first case acquired through absorption by skin. The expired air in the boy's breath still smelt o acetone the next day, yet urine and vomits contained no acetone; the blood was not examined. The cause of the poisoning could not be determined. He employs these dressings frequently and the only difference in applying it in this case, was that instead of putting it first on a model and then transferring it to the patient, the dressing was at once put on the patient, over tricot however. Not one of the numerous animal experiments performed by him resulted in acetonuria nor acetone poisoning.

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Acute Intussusception.

Steward (Guy's Hospital Gazette) says that the causation of the condition is obscure. A polypus may excite irregular peristaltic contraction, as may also enteritis, so that a history of diarrhœa or change of diet may be occasionally noted. The clinical aspect, illustrated by fifteen cases recently operated upon, shows that the average age was fourteen and a half months. This is above the usual average, which is about six and a half months. The children are nearly always well-nourished and fat, and not infrequently only children, which may have something to do with improper feeding. With regard to symptoms, vomiting is nearly always present, and is the first to be noticed. The passage of blood and mucus is a constant symptom with few exceptions, while the presence of the characteristic sausage-shaped tumour is also practically constant, although it may be necessary to give an anæsthetic in order to find it. Pain of a paroxysmal nature is often present, while distension and rigidity of the abdomen are late symptoms, indicating paralysis of the bowel and peritonitis. The value of a rectal examination and a bimanual examination will often aid in detecting either the intussusception or the presence of a tumor. Diagnosis is, as a rule, easy. One rare disease (Henoch's purpura) is possibly to be confused with intussusception. Treatment is of two sorts—inflation from the rectum and laparotomy.

Inflation proves to be a failure in the large majority of cases. This is due in a large number of cases to the amount of pressure that is necessary to reduce the intussusception. The anatomical character of the intussusception also proves a considerable obstacle to reduction by inflation, since it is impossible to inject water or gas beyond the ileo-cæcal valve, and many intussusceptions begin at or above this part, the ileo-cæcal valve being the apex of the intussusception. The possibility of rupture of the intestine is also a real drawback to inflation.

In the second form of treatment, the abdomen is opened aseptically, and the intussusception reduced with the fingers. A combination of laparotomy with inflation may be used. A good deal, possibly all, of the intussusception may be reduced by inflation. A finger in the abdomen makes certain that it is so. If inflation fails, then the intussusception is pulled out and reduced by manipulation. As much force as is necessary may be used, since if the intestine gives way a resection is easily done. If the intussusception is irreducible a Paul's tube should be tied in, or the whole mass must be removed.

The mortality is a high one, but with early laparotomy should be reduced to about 25 per cent. The earlier the laparotomy is undertaken, the greater the chance of recovery.

Perforating Ulcer in Typhoid Fever.

Goodall, in the London Lancet, bases his experience upon ninety-six cases of perforation in enteric fever. All but two of these cases were fatal—one in which an operation was performed, and the other recovered without operative treatment. During this period 1,921 cases of typhoid fever came under treatment. From these figuree it will be found that perforatiou occurred in 4.9 per cent. of the cases; and, as there were 304 deaths altogether, it was responsible for 31.5 per cent., or nearly one-third of the total number of deaths.

Causes.—Perforation in this series was more common among males than females in the proportion of sixty-two to thirty-four. The largest number of cases (fifty-two) occurred between the ages of ten and twenty-four years. As regards the period of the disease, the majority took place during the third, fourth, and fifth week of the illness. The type of attack was usually severe. The writer believes that the most common cause of perforation is the actual extension of the necrotic process to the serous coat of the bowel. Errors in diet, unsuitable purges, straining at stool, sudden movements on the part of the patient, etc., do not—at any rate in hospital practice—play an important part in its causation.

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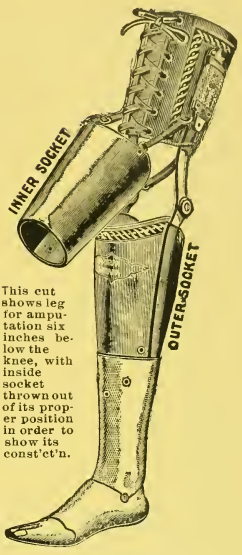

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common symptom is abdominal pain, and it is usually sudden and severe. It is most often felt in the lower part of the abdomen and particularly in the right iliac region. In some cases it cannot be localized. The other local signs which may be present are tenderness, rigidity, and alteration in the condition of the of the abdomen in the direction of either distension or retraction. Of the constitutional symptoms shivering is one of the most important. It usually occurs at the same time as the pain, but may exceptionally precede it by some hours. The pulse usually increases in rate, and the wave diminishes in size. Other initial symptoms are vomiting, collapse, the occurrence of slight cyanosis or pallor, and the passage of two or three loose stools where previously there had been constipation or an infrequent action of the bowels. None of these initial symptoms are so frequently present as shivering. A marked fall in the temperature is exceptional. In the author's experience, a fall of temperature usually indicates collapse on the onset of peritonitis.

Treatment.—A laparotomy should be performed as soon as possible, even though one may risk finding no perforation, and sometimes even no peritonitis. Rapidity in the operation is very essential to success. Unless the local signs are most marked in some other part of the abdomen, he prefers an incision in the right linea semilunaris. In most cases it will be sufficient to close the perforation with a Lembert's suture: but, if this be impossible from the large size of the ulcer or the thickness or induration of its edge, the best course is to fix it in the abdominal wound and make an artificial anus. The nature of the case will determine whether irrigation and drainage are needed; they will be necessary if septic peritonitis has supervened. General anæsthesia was employed in all but one case, in which the local anæsthetic (eucaine) did not prove satisfactory. It is of importance to withhold narcotics before a diagnosis is made, unless the pain is very severe, owing to the readiness with which the important symptoms become masked.

Case of Extensive Gunshot Injury.

Kendall (Montreal Med. Journal) describes an interesting case in which he says:

So extensive was the laceration and gangrene that I found it necessary to remove both testicles, four inches of the cords, and do a complete amputation of the scrotum. I removed all the stitches from the leg, cut away as much of the gangrenous material as possible, and applied wet boric acid compresses. Owing to the condition of the patient, I did not deem it wise to explore the track of the shot, which entered the abdomen, hoping from the upward course that the shot had merely lodged in the muscles.

At the end of four weeks, everything being favorable, I decided to skin-graft, but, acting on the suggestion of Dr. Drew, I decided to do a different operation, which, I must confess, was somewhat experimental in character. I started by making an incision in the healthy skin down to the muscles and completely around the wound, the lines being roughly triangular in shape, fifteen inches long and four and a half inches wide at the broadest part. I then dissected up in one piece the whole granulating surface with the underlying scar tissue to the healthy muscle and removed the whole en masse. The next step was to dissect back the healthy skin from the underlying structures for a distance of from two to three inches, thus allowing the opposing edges of skin to be drawn together with very little tension. After making six small incisions for drainage, I sewed up the wound, using fifty-one sutures. After introducing gauze wicks through counter incisions, I put on a dry dressing.

One week later Dr. Drew reported that he had removed all the stitches, and the wound healed by first intention, with the exception of one place, where a couple of sutures sloughed out and left a small granulating surface.

Two weeks after the operation the patient resumed his work of driving a team in a lumber camp.

On the Sterilization of the Hands.

Leedham-Green (Birmingham (England) Medical Review) concludes a valuable paper as follows:

1. Even after the most prolonged and energetic washing of the hands in soap and hot water, it is not possible materially to diminish the number of microbes on them.

2. The same conclusion holds good whether seasand, marble dust, or Schleich's soap be employed.

3. There is no advantage to be gained by unduly prolonging this washing process, as the hands never become sterile, and, owing to the loosening of the epidermis, generally appear more infected after than before the washing.

4. Neither is there any advantage offered by the use of soft soap, or soap containing an excess of free alkali. Any increase in detergent action is more than counterbalanced by its irritating effect upon the skin.

5. The water should be used as hot as it can be borne and it should be frequently renewed. After washing, the hands may with advantage be rubbed with a dry, rough, sterile cloth to assist in the removal of the superficial cells of the epidermis.

6. The use of turpentine, benzoline, or xylol during or after the washing with soap

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and hot water does not appreciably improve the results.

7. The aqueous solutions of carbolic acid, lysol, perchloride or biniodide of mercury are practically powerless to affect the microorganisms situated on the hands, and the use of these antiseptics after a thorough preliminary washing of the hands utterly fails to render them sterile.

8. The use of a saturated solution of permangate of potash followed by the application of strong oxalic acid (Kelly's method) gives wholly inadequate results.

.9 The bacteriological power of the new antiseptic "sublamin" is considerably below that of perchloride of mercury, and as a sterilizing agent for the hands is of little value, and cannot be compared in efficiency with the alcohol-sublimate method of Furbringer, which it was introduced to supplant.

10. The combination of an antiseptic like lysol or biniodide of mercury with a soap does not increase the power of the antiseptic, but rather tends to lower it. Such soaps are practically valueless for the cleansing of the hands.

11. Alcohol possesses a remarkable power of sterilizing the hands, far surpassing that of all other agents. In order to obtain the full benefit of the spirit method it is necessary to employ the alcohol for from four to five minutes; and the whole procedure must be carried out with vigor and intelligence.

12. Unless the hands are in an exemplary cosmetic condition good results cannot be obtained by any method. A roughened or chapped hand does not admit of disinfection.

13. As the result of his experiments the author is forced to conclude that, though the spirit be employed for not less than five minutes, and the hands be in an exemplary cosmetic condition, yet perfect sterility cannot be obtained, and in a considerable proportion of cases the hands are still surgically infective. When the hands have been recently infected with septic matter the likelihood of their being rendered sterile is greatly diminished.

14. Spirit soap is greatly inferior to plain alcohol as a cleansing agent; and the addition of biniodide of mercury or lysol to this soap does not materially increase its value.

15. The power which alcohol possesses of sterilizing the hands is principally due to its property of hardening and fixing the superficial cells of the epidermis; in addition to which it has a marked bactericidal action.

16. With the exception of absolute and very high percentages of alcohol the spirituous solutions of antiseptics (perchloride of mercury) are markedly superior to the aqueous solutions in sterilizing power. The efficiency increases in direct ratio to the percentage of alcohol in the solution up to about 70 per cent., when any further increase in the proportion of the alcohol causes a reduction in the sterilizing power of the antiseptic.

17. It is an advantage to replace the watery antiseptic solution in Furbringer's method by 70 per cent., sublimate-alcohol. It is a more powerful bactericide, and it does not reduce the hardening of the epidermis by the previous alcohol.

18. Of all the methods tested, the best results were obtained by the following modification of Furbringer's process: (*a*) The hands are first scrubbed for five minutes with soap and very hot water (about 50 deg. C.), the water to be frequently changed. The use of sterile sea sand as an addition to the nail-brush is an advantage. (*b*) The hands are then rubbed with methylated spirit for three minutes. (*c*) Afterwards scrubbed for a minute or two with 70 cent., sublimate-alcohol (1 in 1,000). (*d*) And finally rubbed until dry and polished with a sterile cloth.

19. Hands which have proved practically sterile directly after the cleansing process gradually become more and more infective, as under the imbibition of the water the alcohol-hardened epithelium is loosened.

20. As no method of cleansing the hands guarantees sterility it is desirable that impermeable gloves be worn when the nature of the operation permits, whether the wound be aseptic or septic. In the former case they protect the patient, in the latter the surgeon, from risk of infection.

21. Where gloves cannot be tolerated on account of the loss of tactile sensation they cause, the epidermis of the hands may be protected to some extent from direct contact with septic matter by a thin layer of hard paraffin.

22. A period of abstention from operative work with especially virulent septic matter is desirable.

Evolutio Praecox.

Jaroslav (Medical Press and Cir.) calls attention to a child, æt. 6½. which is a remarkable case of premature development. At its birth it was much larger in size than its other two elder sisters, and also grew rapidly after it was born. In its fourth month the breasts became swollen, with a sanguineous discharge from the vagina; at the sixth month this was repeated, and has recurred regularly since every four weeks, continuing to discharge for three or four days at the period. The only exception occurred two years ago, after an attack of scarlet fever, when the menses were suppressed for six months. At the age of 1½

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ANÆMIA, NEURASTHENIA, BRONCHITIS, INFLUENZA, PULMONARY TUBERCULOSIS, AND WASTING DISEASES OF CHILDHOOD, AND DURING CONVALESCENCE FROM EXHAUSTING DISEASES,

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the hair was a considerable length on the pubes in the arm-pits. The child now weighs 25.5 kilos, or 4 stone 3 pounes, and measures in height 127 centimeters, or 4 feet 2 inches, and has all the appearance of a girl 13 or 14 years of age. The breasts measured 14 centimeters in diameter, half spherical mammilla, well formed and dark colored around, well nourished and the hymen *in situ*. The labia majora are pigmented and full; and *per rectum* a large uterus can be detected with a very large irregular sperical left ovary. The pelvis is wide, and the skiagraph gives a picture of a perfectly developed female of 18 years. The epiphyses of the ossia femoris are quite hardened, and the pelvic bones perfectly ossified and bound together. The pelvis measures: Distantia bi-spinalis, 24.5 centimeters; bi-cristalis. 25 centimeters; bitrochanterica, 24.5; and the conjugata externa, 15 centimeters.

The author says that the causes for these precocities were recorded as many, but few had the record of this case to show. Among the etiological factors were rachitis, tuberculosis, bacterium coli, stimulating diet, heredity, and finally, primary hyperplasia of the ovary.

Pneumonia: Some Points in Diagnosis and Treatment.

John Hay (Liverpool Medicochirurgical Journal) has observed 150 cases of acute lobar pneumonia. These cases had come under his notice in the years 1899, 1900, when acting as assistant medical officer to Mill Road Infirmary. For permission to publish these cases he acknowledged his indebtedness to Dr. Raw.

Of the 150 cases 21 were admitted moribund or died within twenty-four hours of admission; after eliminating these there was a death rate of 31 per cent.

Alcoholic excess was much in evidence. It was admitted in 65 of the 150 cases, and of these 65, 37 died.

Under the heading of the physical examination he drew attention to the great value of a careful examination of both axillæ and of the site of the fissures, also the importance of remembering that with the patient lying on one side, the side uppermost frequently yielded, near the middle line of the back, a higher pitched note than the corresponding area of the other side, while the breath sounds heard on the side of the patient next the bed were not seldom diminished in intensity.

The writer mentions cardiac strain, and the effect on the heart of the onset of hepatization, the toxæmia, the tmeperature, delirium, and struggling, and he emphasized the far greater importance of the condition of the myocardium in the prognosis than the existence of well compensated valvular disease, and brought forward numerous cases in support of this view. The signs of cardiac failure were then discussed, especial emphasis being laid on the importance of a careful definition of the deep cardiac dulness. This should be mapped out at the first examination and drawn on the chest with caustic silver nitrate, so that during the rest af the attack it might be possible to compare the shape and size of the heart at any time with that made out at the first examination. The author recognizes the extreme gravity of the prognosis in cases where an irregularity of the pulse was present before the crisis, except in the aged or in those cases where there existed mitral stenosis.

The causes and treatment of sleeplessness, delirium with struggling and flatulent distention of the abdomen, were discussed, also the indications and contraindications for the administration of morphine.

He is of the opinion that the value of alcohol in the treatment of pneumonia is much overrated, owing to a misconception of its therapeutic action.

There is now a marked change of opinion in the views held by the profession with regard to alcohol.

Alcohol was of definite value when given in order to counteract the contraction of the peripheral vessels, such as occurred during the initial rigor, or when given as a narcotic to aid in the production of sleep.

It may also be of service during convalescence.

He speaks of the consensus of scientific opinion was undoubtedly opposed to the view that in its specific action alcohol was a cardiac stimulant.

This being the case, it was futile and unscientific to take the onset of the signs of cardiac failure as any indication for its exhibition.

He deprecated the routine treatment of severe pneumonia with alcohol, and regretted that it was so difficult to escape from the trammels of tradition.

The author records the results of 47 cases which were treated throughout without alcohol as compared with 103 cases which received alcohol when the orthodox indications for its use arose.

The patients in each class were, so far as possible, of a similar type, every patient suffering from pneumonia admitted on certain days of the week being placed in the one class, every pneumonia admitted on the remaining days being allocated to the other, without any regard to the severity of the attack.

After eliminating from both classes those admitted dying, the mortality in Class I

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(those who did not receive any alcohol) was 21.5 per cent., as compared with 36.5 per cent. in Class II.

The writer showed that the only serious difference in the treatment was the one of the administration or otherwise of alcohol, and that the great difference in mortality was in all probability largely due to that factor.

As both classes had been recruited with pneumonia patients simultaneously and automatically over a period of more than twelve months without any attempt at selection, it was very improbable that there would be any great difference between the two classes with regard either to the virulence of the infection or the severity of the toxæmia, or in the history of alcoholism.

It is suggestive that in both classes the average age worked out to 33 years.

The action and value of digitalis, strychnine, caffeine, and ammonium carbonate were discussed, and the treatmeet by the application of ice-bags to the abdomen was considered.

Irregular Typhoid Fever.

Curschmann, in the Deutsche Medical Woch., says that cases of ambulatory typhoid fever may be divided into those in which the symptoms are not only slight but of brief duration, and those in which the course is abnormally prolonged. In either case pyrexia may be altogether wanting, or the temperature may rise only after exertion or excitement. In prolonged, apyretic, ambulatory cases the diagnosis is especially difficult. If the nature of the case is overlooked, sudden fatal intestinal hæmorrhage or perforation is liable to occur. He has known an officer to perform his duty for three weeks; a professor to continue his lectures and literary work for a fortnight; and a helmsman to steer in all weathers day and night on the voyage from New York to Hamburg, though suffering from typhoid fever. Perforation may be sudden or gradual. In the latter case the pain of localized peritonitis is liable to be mistaken for that of intestinal catarrh or colic. Occasionally the symptoms of peritonitis are localized in the right iliac fossa. These may be due to perforation of a cæcal ulcer or to ulceration of the appendix itself—typhoid perityphlitis. If perforation occurs in this position in an ambulatory case of typhoid fever the diagnosis is especially difficult. A fatal tissue in ambulatory typhoid may exceptionally depend on some non-intestinal complication, for instance, pulmonary embolism. Other irregular types of typhoid fever are the abortive, malignant or foudroyante, and hæmorrhagic. The malignant type is rapidly fatal. It is accompanied by hyperpyrexia and usually by signs of grave intoxication from the beginning. But occasionally a case of ambulatory typhoid fever may terminate by a foudroyante exacerbation. More uncommon than the malignant is the hæmorrhagic type, which is characterized by hæmorrhages into the skin any one or more of the viscera. It is liable to be mistaken for typhus fever until a necropsy reveals the presence of enlarged or ulcerated Peyer's patches. The writer has seen 6 such cases, 3 of which occurred in children. The hæmorrhage may occur either after prolonged pyrexia. during a relapse, or at, or shortly after, the onset of the first symptoms. In the last case it is usually rapidly fatal. Sometimes there is fatal meningeal hæmorrhage.

Pyelonephritis and the Puerperal Condition.

Wallick (British Gynecological Journal) in discussing this subject makes the following statement: What is the effect of a pyelonephritis upon a woman in the puerperal condition when the vulva is exposed several times a day to the infective influence of a purulent urine; and whether in case of an elevation of temperature it is possible to distinguish between a fever due to pyelone phritis and one due to puerperal infection?

From a number of collected observations he formulates the following conclusions: The recovery may be perfectly normal and apyretic, particularly if no fever has been present for some time before labor; but there may be pyrexia if the pyelonephritis had provoked any fever shortly before labor. This pyrexia, however, might be distinguished from the fever of puerperal infection by its presenting wider oscillations of daily temperature, sometimes reaching or even exceeding 2 deg., and by a morning remission to 37 deg. C. or lower. Moreover, the pulse would not exhibit an acceleration corresponding to the elevations of temperature: and the general condition of the patient outside the daily period of fever would be more satisfactory than in puerperal infection.

Missed Abortion.

Orthmann (British Medical Journal) mentions this condition in a woman aged twenty-seven, subject to mitral incompetence, who had already aborted twice. At the end of October, 1902, she came once more under treatment, and stated that she had not menstruated for five months. The uterus reached to the level of the umbilicus; the parts of the fetus could not be defined, nor had the mother felt any movements. There was a little show four weeks later. At the beginning of January, 1903, the condition of the patient seemed unchanged, and to-

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ward the end of March a mummified fetus was expelled; it measured hardly 2¼ inches, but had reached about the third month of development. There was very little liquor amnii. The fundus still lay midway between the umbilicus and pubes. After application of the tampon to the cervix, powerful contraction set in, and the placenta was expelled entire; it appeared as a cast of the uterine cavity, 4 inches in length, 3 inches broad, and 2 inches thick. The placental tissues displayed extensive retrogressive changes; numerous minute white patches were detected, and they each showed central softenings so that they were becoming cystic. These changes had originated in degenerated villi.

Arterial Tension in Typhoid Fever.

Carriere and Dancourt (Rev. de Med.) give the results of a study of 41 cases of typhoid fever in children. Nothing is known of the arterial tension during the prodromal stage, but at the beginning of the fever it is lowered, being on the average 8.7 instead of 13 or 14. It then gradually rises without much oscillation, and during the second and third weeks measures 9.2. This is slightly higher than the average for the whole disease. During defervescence it always falls, to rise again to normal during convalescence. In children the tension is lowered both relatively and absolutely more than in adults. Although hypotension is the rule, hypertension is sometimes found, and is at least as common as very low hypotension. A slight attack without febrile symptoms generally passes through its course with slightly-raised tension. The tension renders no aid to the diagnosis or prognosis of the general clinical form of the fever. On the other hand, it is of considerable use in the discovery of complications. Increased tension is found the day before, or even several days before, a hæmorrhage. It very frequently accompanies congestion, especially of the lungs, and may be the only sign to put the physician upon his guard. Pericarditis causes an augmentation. Myocarditis does not necessarily lead to lowering of the tension; on the contrary, the opposite is often seen. It is necessary to auscultate regularly and keep a record of the pulse-rate, as it is rather the frequency than the tension which is then important. The tension is not influenced by alimentary trouble, by the formation of an abscess, an infectious disease, nor by aortic tensions. Arterial tension is thus able to reveal the onset of complications, and taken together with the frequency of the pulse, the temperature chart, and the general aspect, it is of considerable use in prognosis. It is, too, a useful indication for therapeutics. He uses spirits of nitrous ether to reduce tension, but to raise it employ cardiac tonics rather than vaso-constrictors.

A Case of Chronic Lymphatic Leukaemia.

Findlay, in the Glasgow Medical Journal, describes a case aged sixty, who first came under his observation in April, 1904, complaining of weakness and breathlessness of sixteen years' duration, and of pallor and enlargement of the lymphatic glands of two years' duration. He contracted syphilis in 1860 while a soldier in India, which was practically untreated. He was seized with "fever and ague" in 1875, and has suffered much from chronic bronchitis since about 1880. Since 1895 he has had several gummata, the last in 1889 on his right leg; this discharged for several months, and the glands in his right groin became very large and tender. The glands remained swollen after the leg had healed, and have never since varied in size. Since 1899 he has had every few months what he calls "erysipelas," and also herpes of the buttocks. Though weak and breathless for many years, he remained "well coloured" until 1902, when he became very pale and lost weight. He first noticed lumps under his chin, then later on both sides of the neck and in the axilla. These all came on in the course of three or four months, but during the last eighteen months have fluctuated considerably. During the first year after their appearance he had occasional epistaxis and occasionally coughed up a little blood. For several months he has suffered from pain and tenderness over the lower half of the sternum.

Present state: Skin remarkably pale, face swollen, and eyelids puffy. Limbs thin and muscles flabby. All the glands of the neck are enlarged and soft. The submaxillary glands are involved, and there is a chain of glands extending from the clavicle to the axilla on both sides. There are large masses in the axilla, but none in the popliteal spaces or about the elbows. All the inguinal glands are affected, and masses can be traced along the iliac vessels. The glands are larger in the right groin than the left. The tonsils are not enlarged, and the thyroid gland is normal. The chest shows chronic bronchitis and emphysema. There is no dulness suggesting mediastinal enlargement. The heart is free from murmurs. The abdomen is flatulent, and no enlarged glands can be made out. The spleen reaches to 2½ inches below the ribs, and the liver is enlarged and very soft. The urine contains a faint haze of albumen and a few hyaline casts. The nervous system is normal. An irregular pyrexia is present, the evening record ranging between 99 deg. to 103 deg.

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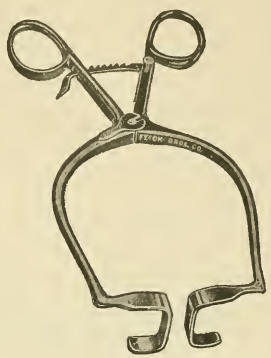

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F. The blood contained 1,175,000 reds and 152,500 whites, the differential count of the latter showing 95 per cent. small lymphocytes, 1.9 per cent. large lymphocytes, 2.5 polymorphonuclears, and 0.1 myelocytes. The hæmoglobin was between 25.5 and 30 per cent., the colour index being about unity. Under treatment with Fowler's solution, 15 minims per diem the first week, 22.5 minims the second week, he improved in his general condition, and the red cells and hæmoglobin showed a slight increase. The white cells, however, underwent a considerable increase, up to 568,660, a ratio of 1 to 2.5. It is interesting to note that the man had suffered from two of the recognised remote causes of leukæmia—viz., malaria and syphilis, the latter being practically untreated. Pressure symptoms are almost absent, which is explicable from the fact that matting of the glands exists only in the axillæ, and is there only slight. The duration is long, about two years, in consequence of the considerable and widespread glandular enlargement.

Gonorrhoeal Salpingitis in a Girl Three Years Old.

Carpenter, in the British Journal of Children Diseases, reports the case of a girl, aged 3½ years, who was brought to his clinic at the Evelina Hospital, on November 3, 1898, for advice as to a vaginal discharge of six weeks duration; for pain in the lower part of her abdomen, which was not swol-

len, and for frequency of micturition. The pus from the vulva contained numerous gonococci. On a bimanual examination (per rectum) the uterine appendages were found to be involved. On the right side there was felt an irregular-shaped elastic tumor attached to her uterus at the upper end, and from which it could not be differentiated. Its free extremity was movable. It presented a central depression and measured about 1½ inches long and ¾ of an inch across.

On the left side the Fallopian tube apparently ended in a fusiform swelling, which was attached to the side of the pelvis, and which was about an inch long and a quarter of an inch broad. Lying below this body were two rounded bodies, somewhat movable, one of them being about the size of a small pea, the other half that diameter. The uterus felt natural except just where it was attached to the tumor on the right side.

On December 1st the pelvic condition had considerably changed. The left ovary and tube were found to be of natural size. The right tube was decidedly enlarged. There was still a purulent discharge from the vagina. At the end of May the discharge was less. There are now a number of cases of localized gonorrhœal peritonitis in girls on record, but none that the doctor is aware of had any record of bimanual examinations of the internal genitalia during the course of these complications. The author says that there was a pelvic peritonitis and salpingitis certainly on the right side, and possibly the rounded tumor felt on the right was an oophoritis; also that it was a gonorrhœal inflammation from which the patient recovered spontaneously.

Bacteriological Diagnosis of Typhoid Fever.

Rolly (Munch. Med. Woch.) records the results he obtained in 50 cases with details of his method of procedure; 20 c.c. of blood were withdrawn in a sterile syringe and added to melted glycerine agar at 42 deg. to 45 deg. C. The resulting mixture was plated, and the growths examined after one to two days. A growth resulted in 44 out of the 50 cases, the number of colonies varying from 1 to 480. Bacilli were generally more numerous at the onset and at the height of the fever than later. No bacilli were ever found when the temperature was normal, The number of bacilli bore no constant relation to the severity of the case, some grave cases having many bacilli, while others equally grave, and even fatal, had few. Bacilli were found in 16 early cases, although the serum test and blood-count were both negative. He believes that a bacteriological examination is likely to be most valuable at the onset, when other symptoms are lacking. Where a culture on agar cannot be made directly, he recommends the use of the following fluid, in which the blood may be preserved for a short time (without destroying the bacilli) until the proper medium can be obtained: Five grains of peptones and 50 grains of glucose should be dissolved in 100 c.c. of water, boiled for five to ten minutes, and poured into large test-tubes, putting about 20 c.c. of the mixture into each. They should be sterilized, and are then ready to receive the 20 c.c. of blood when it is withdrawn.

An Unusual Variety of Pleurisy in Children.

Riviere, in the London Practitioner, describes six cases of loculated effusion occurring over the middle lobe in children, a condition which closely simulates other pathological changes in the same position. The cases, like other idiopathic serous pleurisies, occur in the later years of childhood after infancy is passed. The onset and general symptoms are those commonly found in the primary pleurisies of children. When first seen there is a dull area on the right side of the sternum, continuous on the left with the cardiac dulness, rising above to the fourth, third, or even second right costal cartilage, and extending outwards to the right nipple line or somewhat beyond. Over this area the sense of resistance is much increased, the breath-sounds are diminished and may be bronchial, the vocal resonance is muffled, and in some cases a friction rub is heard. The heart is found displaced 1 inch or more to the left. Later the dull area may have increased in extent, its upper border now sloping downwards to meet the base-line as far outwards, perhaps, as the mid axilla. Still later frank signs of fluid are found extending round the base of the chest, and the diagnosis is clear. The condition may be confused with cardiac enlargement, empyema, collapse of the middle lobe, and fibrosis and bronchiectasis of the middle lobe.

Two explanations may be given to account for the loculation. Firstly, the fluid may be held up for a time against the force of gravity by surface collapse of the middle lobe behind it. Secondly, and more likely, the formation of adhesions before effusion occurs, as probably happens when fluid is poured out over the surface of a croupous pneumonic lung. The relation of the lesion to the right middle lobe suggests the probability of an antecedent tubercular focus, since the root of this lobe is a common situation for subpleural caseous glands in children.

PNEUMONIA

PLEURISY AND BRONCHITIS

Under the old modes of treatment the death rate from pneumonia was phenomenally high—too high. Some will die under any treatment, but those who are usng

Antiphlogistine

in treating their pneumonia patients find that many apparently hopeless cases recover.

Most physicians now freely acknowledge that Antiphlogistine is far better than ice-packs, blisters, counter-irritants or poultices of any kind. Through a uniform degree of heat and moisture, long and continuously maintained, aided by a persistent hygroscopic effect, Antiphlogistine tends strongly in the direction of flushing the capillaries. The relief of the pulmonary congestion and the overworked heart is further encouraged by Antiphlogistine's action upon the nerve terminals, resulting in a dilation of the superficial vessels and the contraction of those deeply seated.

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Directions for Applying In Pneumonia.—Prepare the patient in a warm room Lay him on his side and spread Antiphlogistine thick and as hot as can be borne over one-half the thoracic walls. Cover with a good, warm, cotton-lined cheese-cloth jacket. Roll the patient over on dressed side and complete the application. Then stitch the front of the jacket. Prepare everything beforehand and work as rapidly as possible. The dressing should be renewed when it can be easily peeled off, generally in about 24 hours.

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New Researches in Diphtheritic Paralysis.

Babonneix, in La Presse Medicale, refers to the notions prevalent to-day about the nature of diphtheritic paralysis, which may be summarized as follows: Anatomica-pathological examinations reveal cellular lesions in the spinal marrow, especially in the anterior horns and neuritis, ordinarily of the Wallerian type, and sometimes of the peri-axial type. Experimentally he succeeded in reproducing these lesions, but whether the question related to human paralyses or experimental paralysis, the lesions of neuritis may exist alone, or be accompanied by central lesions. From these anatomico-pathological facts it results that some authors explain diphtheritic paralysis as a pure neuritis, while others believe in the coexistence of medullary and peripheral lesions. Respecting the *modus faciendi* of the lesions, two theories offer interpretations: that of Roux and Yersin, who attribute their production to the toxin brought by means of the blood, and the theory of Beaulieu, who places these lesions under the dependence of a direct action of the bacilli carried to the nerve tissue. In presence of these pathogenic uncertainties the author remarks that one cannot dream of establishing a one-way pathogenesis, because it is not a case of *one*, but of *several* diphtheritic paralyses, and because in what concerns more particularly experimental paralyses, those which he has reproduced up to the present time differ profoundly from human paralyses.

The most important clinical character of human paralyses consists in the remarkable relation which, in the majority of cases, exists between the seat of the primitive diphtheritic inoculation and that of the consecutive paralysis; pharyngeal diphtheria, for instance, followed by paralysis of the velum palati. In certain cases even a unilateral paralysis succeeds a unilateral angina. This is the leading idea which the author has followed in his experiments when diphtheritic toxin has been introduced into the dog and the rabbit. By intravenous injection of strong doses of toxin he has succeeded in reproducing, as Roux and Yerson and many others have done, subacute intoxication without paralysis; by subcutaneous injection of strong doses of toxin acute ascending paralysis has resulted, followed by death in a few days. These results bear no evolutionary or symptomatic analogy to what is observed in man. To reproduce paralyses exactly similar to human ones, it is necessary to operate with very small doses of an attenuated toxin, and then one gets a monoplegia strictly localized in the paw of the animal, where the injection was made. By augmenting the dose a little, one gets paralysis, beginning in the inoculated region like the generalized form observed in man, and which increases slowly in the sequel. In spite of everything one obtains in these experiments only an analogy, and the experimental reproduction of generalized human paralyses remains yet to be realized.

Localization of paralytic phenomena in the injected member makes one ask if the toxin follows the blood route, or the nerve route, in causing these lesions. The experiment made to settle this question, and which consists in injecting toxin into the sciatic nerve, brings about a paralysis of the corresponding paw, but the paralysis does not always remain localized in the same paw and may extend to the opposite one.

Experimentally, therefore, one may realize all the intermediate conditions between subacute intoxication without paralysis and strictly localized paralysis; the relation between primitive diphtheritic localization and consecutive paralysis appears to be explained by the ascending propagation of the toxin along the peripheral nerves.

Emergencies in Ophthalmic Practice.

Ramsey (Lancet), in a clinical lecture mentions the folllowing points: Wounds of the margins of the lids must be accurately sutured in order to prevent incision of the cilia and subsequent irritation, and also to prevent obstruction of the tear passages. In case of lacerated wounds of the lid it must be ascertained that the ball of the eye is not injured. In this class of injuries pain and distress are often out of proportion to the severity of the injury. Blepharospasm is so marked that it is impossible to separate the lids. A two per cent. cocaine solution will generally relieve this difficulty. Then an antiseptic solution can be used, followed by an ointment containing cocaine and the eye bandaged. In conjunctival burns, irrigation with a bland fluid should be followed by a five per cent. of chloretone in olive oil or cocain in castor oil and an iced compress placed over the closed lid. In a case of sudden blows on the eyeball it is wise to adopt antiphlogistic treatment from the outset and after instilling atropine to apply leeches to the outer canthus and iced cloths to the closed eyelids, to administer a sharp purge, and to confine the patient to bed. An ophthalmoscopic examination should be made as soon as possible, so as to detect any deeper injury. A firm bandage is an essential when the injury leads to emphysema of the lids. In case of sudden blindness without a history of injury great care should be taken to immediately ascertain the condition of intraocular tension so that glaucoma may not be mistaken for some other condition and a diagnosis made of

iritis. If glaucoma is determined the practitioner should at once instil eserine, to put leeches to the temples, and to apply fomentations to the eyes. If in a few hours the pain has not subsided means must be taken to reduce intraocular tension by opening the eyeballs so as to relieve the strangulation at the corneoiritic angle. If the practitioner cannot obtain assistance he ought not to wait, but should at once puncture the sclerotic with a narrow knife and allow some of the vitreous to escape.

Course of Infective Endocarditis.

French (The Practitioner) says that infective endocarditis is commonly spoken of as having two types, the septic and the typhoid. The old distinction between "simple" and "infective" endocarditis has lost much of its significance. It is possible that the same infection may at one time cause a simple and at another a rapidly fatal septic inflammation. In addition to the pyemic and typhoid types there is a third or cardiac form. This may have a duration of months rather than weeks. In these cases it is often difficult to decide whether the cardiac symptoms are due to an old fibrosis of the valves or whether there are fungating masses on the valves. The additional symptoms most suggestive of the latter are pyrexia, multiple emboli, splenic enlargement, and progressive anemia.

Miscellaneous.

The Medical Herald, St. Joseph, Mo., advises physicians to try Eusoma (Echinacea Compound) in cases of eczema which have long resisted treatment.

The affected part should be carefully cleansed of all scales and crusts, and then covered with a soft cloth and kept moist with a mixture of equal parts of Eusoma and water. The internal treatment is essential, and this, so far as drugs are concerned, may be limited to one teaspoonful of Eusoma four times daily. The patient's condition should be carefully studied and all sources of irritation removed.

Hagee's Cordial Cod Liver Oil Compound is very highly recommended for all cases of lung trouble, as a restorative in children as well as adults, after pneumonia and la grippe. In bronchitis in old people it is excellent. It is palatable, easily assimilated, and is a good tissue builder. Often where other preparations of cod liver oil have been taken without the least benefit, Hagee's will be found to do the work.—The Kansas City Medical Index-Lancet.

In prescribing the products of Manufacturing Pharmacisis, we should be guided to a great extent by the business standing of the manufacturers. No other house in the South or West has a better reputation for strict integrity than the Robinson-Pettet Company, Louisville, Ky. We do not hesitate to recommend the preparations advertised by them on page xii, this issue.

A special week in Diseases of the Eye will be held at the Philadelphia Polyclinic from April 3rd to 8th, 1905, during which a special effort will be made to present an interesting series of lectures, demonstrations, operative cases, etc.

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Literature on application.

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In a recent notification by the Surgeon General of the United States Army, it is asserted that all the results from poultices can be obtained in a more cleanly way by the use of wet hot compresses. Hence the order to the army surgeons to drop linseed and linseed meal from army medical requisitions.—Virginia Medical Semi-Monthly.

We highly approve of this order as far as discarding poultices made of putrescible and bacteria-breeding materials is concerned, for that is what has been done by all up-to-date physicians in private practice, but we can hardly recommend the substitute offered! We suppose that every one in this enlightened age was using Antiphlogistine in all such cases because of its advantages over everything else in permanency, efficiency and cleanliness. Compare Antiphlogistine, renewed but once a day, with hot compresses renewed every twenty minutes and we cannot imngine any one using compresses when Antiphlogistine is available.

Women mostly, but very often men, show the effects of the winter's social, climatic or business vicissitudes in a train of symptoms clearly indicative of bankrupt vitality. It is sometimes difficult to classify the condition in any of the well-known disease groups because symptoms of many organs and functions merge into each other and form a complex picture. Impairment of the digestive functions is manifested by loss of appetite, inability to digest food, sometimes gastric pains. Headache. langour, sleeplessness, general exhaustion, constitute the nervous system's methods of voicing its poverty. Loss of flesh and strength and the general state of malnutrition, bespeak disturbances of the functions of metabolism regulating the proportion of waste and repair of tissue.

Here is a strong statement but it is true—every word of it—and is based upon the accumulated experiences of the past twenty years: Gray's Tonic will do more to restore these cases to health than any other tonic or restorative known. Its beneficial effects are noticeable from the start: it engenders appetite, enables the patient to digest and assimilate sufficient nourishment; it favors the restoration of healthful normal sleep without the use of hypnotics; it gradually but surely brings about normal nutrition and removes the symptoms of nervous irritability. Gray's Tonic is in the broadest sense tonic, restorative, reconstructive. It is an indispensable aid in the treatment of poverty of tissue, blood or vitality from whatever cause.

Dr. H. B. Shade, late editor North American Medical Review, in an article as to how to manage nervous and spasmodic affections successfully, (Medical Progress) in part says:

All I think of taking with me on a night call is bromidia and papine, in addition to my pocket case. It matters not whether I find a case of cramp colic, hysteria, spasms, insomnia, dementia, hypocondriasis, croup, spasmodic asthma, abortion, a fracture, neuralgia, rheumatism, cholera infantum, or what not, for in bromidia I find a remedy that can be relied upon in all cases where the muscular, mucous, or nervous system are out of harmony. In many cases I find papine should be prescribed with bromidia where severe pain accompanies nervous conditions, insomnia, appendicitis, cramp colic, fractures, surgical operations, etc. In all cases where morphia is indicated. I find in many cases insomnia and nervous conditions accompanied by pain, incident to rheumatism, etc., bromidia and papine act admirably, given in teaspoonful doses before retiring. No bad effects follow, no constipation, no nausea, no checking of the secretions, so that the business traffic of the system is not interferred with whatever.

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I had two cases which I thought required such a medicament as Sanmetto. I prescribed two bottles of Sanmetto and gave prescriptions for more when that quantity was used up. One case was that of a man forty-two years of age, father of seven children, impotency and neurasthenia; within three days after taking Sanmeto he began to feel the beneficial results and finally regarded himself as cured. I advised him to consult me again if he should be bothered with sexual disturbances. He is a grocer, has long hours, (sixteen a day) with business and family cares.

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Chicago, Ill.

What One of the "Old School of Medicine" Says About Sanmetto.

I have used Sanmetto in my practice to some extent, and find it an excellent and efficient remedy in all genito-urinary diseases, especially in enlarged prostate, with frequent micturition, and in all senile weakness. Being one of the old school of medicine from the class of 1854, Kentucky School of Medicine at Louisville, Ky., I am cautious in prescribing proprietary medicines, though I do not hesitate in recommending the use of Sanmetto.

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Vance	Dr. R. J. Gill, Henderson	Dr. H. D. Stewart, Monroe
Washington	Dr. D. W. H. Hardison, Creswell	Dr. J. L. Hassell, Creswell
Wake	Dr. P. E. Hines, Raleigh	Dr. H. G. Utley, Apex
Wayne	Dr. M. E. Robinson, Goldsboro	Dr. W. H. Cobb, Jr., Goldsboro
Watauga-Mitchell	Dr. J. W. Jones, Boone	Dr. McD. Little, Horton
Wilkes	Dr. J. W. White, Wilkesboro	Dr. M. V. Burrus, North Wilkesboro
Wilson	Dr. C. E. Moore, Wilson	Dr. J. W. Lamm, Lucama
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Samples for trial will be cheerfully sent on request.

The Treatment of Eczema.

Characterized by pustular inflammation, great itching and exudation, this disease is perhaps of all dermatoses, most frequently encountered by the physician.

So far as the constitutional treatment goes, the aim of the physician should be to get the patient into the best states of health he can, and thus the treatment may vary with the individual.

It is interesting to note in connection with the constitutional treatment, that whereas arsenic was once largely prescribed, it is now falling into desuetude among the more enlightened, who regard it, not as a specific, but as like to aggravate inflammatory conditions.

Most authorities are agreed in interdicting alcohol.

In the more important local therapy, reduction of the inflammation and exudation is indicated. First the eczematous crust must be removed: this was formerly done by soaking the entire surface in almond oil, or by applying starch poultices.

Soap and water were forbidden since they tended to irritate the skin and retard the recovery. There is little doubt but that ordinary soap does this; yet the crust can be removed by the use of Resinol Soap and warm water without fear, since it, by reason of properties allied to those of the Resinol Ointment, exerts a benign and soothing influence, and thus not only benefits the patient, but facilitates the work of the physician.

When the crust has been removed, Resinol Ointment should be applied, and repeated every six or twelve hours, according to the irritability of the eczematous surface. Relief will be immediate.

It is better to spread the ointment on strips of thin muslin, gauze or lint. In eczema of the head, it will be found easy to devise a helmet or mask.

Resinol is not a newly-born remedy, but has been prescribed, and continues to be prescribed by the leading physicians in the United States and Canada, who testify by consistent use, their active belief in its merits.

Copy of an Interesting Letter.

Louisville, Ky., Jan. 3, 1905.

The Anasarcin Chemical Co., Winchester, Tenn.

Dear Sirs:—After a severe attack of cardiac asthma, from exposure, the first I ever had, and followed by three other attacks, three or four weeks apart, and great dyspnœa and great weakness, being 78 years old, I found my legs and feet swollen up to my body, with great dyspnœa, scanty urine, etc. My doctor had a sample of your medicine, and I took one tablet three times a day for three days, when all the swelling was gone, breathing better, walking about feeling better. In about three weeks, swelling returned. I, in the meantime, took one tablet a day for ten or twelve days, since which time there has been no swelling of the feet, but some dyspnœa with great weakness, but can lie down in bed and sleep well all night, bowels regular, appetite fair, kidneys act well, not very much at a time, no pain nor very high colored. I am able to walk around a little, but owing to bad weather stay by the fire, as the cold threatens asthma, and tonics do not strengthen me much.

Now, I wish to say you have made one of the grandest discoveries of the times. I have been practicing medicine for over fifty years, and just such cases as mine, I have always lost, and every other doctor that I know. After repeated tapping, the patient generally dies. Your medicine will do away with the trocar, and save many a patient that would die after tapping. It is with the epsom salts, the finest eliminator I ever used. Twice after using it for three days in succession, my pulse went down to twenty (20) per minute without any bad effect, showing its power over the heart, and purging does not weaken like others. I am so sure that my case is Bright's disease that I have not had my urine examined, and my doctor believes the same.

Now, will you be so kind as to send me a sample with all the literature you can, as I am anxious to learn more about so valuable a medicine. All honor to the man or men who succeeded in giving to the profession so timely and invaluable a gift.

Yours admiringly,

F. A. Day, M. D.,

No. 2004 Baxter Ave., Louisville, Ky.

"Painful Menstruation in Virgins."

Dr. Wm. Sellman, of Baltimore, read this paper and pointed out the necessity of giving relief to young unmarried women who suffered from painful menstruation. He considered the forms of dysmenorrhœa that could be relieved by operation. These means should not be of a character to unsex the patient. Lastly he spoke of that class of cases in which dysmenorrhœa was due to a general systemic neuralgia. In these cases, electricity in its different forms afforded great relief. It was doubtful in many of these cases whether the removal of the appendages would accomplish anything more than bring about a premature menopause.

Dr. H. W. Longyear, of Detroit, stated that in operating, if one ovary or a part of an ovary could be saved he did so. He would enter a protest against operating on cases of dysmenorrhœa that were of short duration in young girls.

Dr. William Humiston, of Cleveland, Ohio, had seen cases with a narrow, conical os, menstruating without the least sign of distress, but the moment an inflammatory condition of the mucosa was added, that moment the patient began to have painful menstruation.

Dr. D. Tod Gillian, Columbus, Ohio, spoke of the undeveloped condition of the uterus as a cause of dysmenorrhœa. It was not the result of stenosis of the internal os, but to an unripe condition of the uterine tissues.—Med. Review of Reviews.

The thing that surprises us most in the above article is that not a single voice was raised to proclaim the almost magical effects of antikamnia tablets in such cases. We can readily recall quite a number of cases in which extreme suffering (dysmenorrhœa) was promptly relieved, not by operation, but by antikamnia tablets. Evidently these men were surgeons only.—Ed. Massachusetts Med. Journal, January, 1905.

Germiletum vs. Catarrh and Eczema.

Germiletum being slightly alkaline with no acid reaction, the profession will readily recognize that in Germiletum they have an antiseptic, germicide, deodorizer and disinfectant superior to any other, and whereas the Dios Chemical Company, of St. Louis, manufacture specialties only for physicians to prescribe, the profession may rest assured that all products of their laboratory will be kept up to the highest standard of efficiency. On application they will furnish literature, clinical reports and commendations recommending Germiletum as unexcelled in catarrh and eczema. In addition they proffer their Complete Visiting List for 1905 of 126 pages, Lock Bill File and full size bottle of Germiletum, Dioviburnia and Neurosine free, only to physicians, they paying express charges.

In Promoting Nutrition

Angier's Petroleum Emulsion has a most positive value in the treatment of cases associated with progressive loss of flesh, either as an accompaniment of organic or infectious disease, or existing without discoverable cause. Its value in these cases is due to its reinforcing influence upon the normal processes of digestion, assimilation, and nutrition, whereby the system is enabled to utilize to the full extent all forms of nutriment.

The Charlotte Medical Journal.

VOL. XXVI. CHARLOTTE, N. C., APRIL, 1905. No. 4

"Sepsis: Its Clinical Aspect and Treatment."

By Dr. D A. Stanton, High Point, N. C.

I would apologize for presenting this common-place subject were it not for the good that comes to us all, more from being reminded of what we have forgotten than the new things we learn.

Sepsis is not confined to the major surgical operations and the practice of the surgeon only. It prevades the field of the general practitioner and taxes the skill of us all. It arises as a complication in the management of the most insignificant wound as well as the most serious surgical procedure. Occurs as a complication in obstetrics and claims our attention in many of the contagious diseases. In short, it seems to be the snake in the grass to take us unawares. I don't believe there is anywhere else in the field of medicine and surgery (unless it is diphtheria) is an early diagnosis so important to our life-saving effort as in cases of acute sepsis.

Oftimes the oversight of a single symptom will leave the diagnoses in doubt, while the ravages of the disease progress unchecked. So a most painstaking thorough examination of any patient coming under our observation suffering from a chill and rise of temperature is important. Apart from the usual physical examination there is much to be noted. The patient's position or attitude, his facial expression, the condition of the skin and pulse, the character of the respiration, the presence or absence of pain. If pain, its location and character have a very important bearing in making a diagnosis. To give in detail the different diagnostic symptoms characterizing the numerous aspects which sepsis may assume, and to outline a course of treatment for such would be far beyond the scope of this paper. I shall, therefore, only attempt to portray the clinical aspect of the most important phases in which the disease confronts us. Saying as little as possible about treatment and avoid discription of operative procedure altogether.

In acute sepsis the pulse is the safest and most instructive index we have of our patients condition. Usually it is accelerated from the start, and as sepsis becomes more pronounced it almost always remains rapid in spite of temperature variations. As the fever abates the pulse may become less frequent, but not in the same proportion. There is a further increase in rapidity as the degrees of sepsis becomes more profound, and this may be the only indication we have of such an occurrence. It now becomes softer, looses its volume, and assumes a thread-like running character, indicating that the heart, muscle and cardiac centres are more severely effected. An early sign of this latter condition is a beging irregularity, and when this occurs, coupled with an abnormal slowing of the rate it is an evil omen, indeed. A developing complication may often be foreshadowed by increased pulse-rate before a chill or rise of temperature makes its onset more evident. This is particularly so in peritonitis and meningitis.

The temperature considered alone in sepsis is of little value, indeed, it is often deceptive. Given its due consideration, however, in the symtomology it is a very important diagnostic element. Pus confined in a small area usually gives rise to a high temperature. The greater the tension the higher the temperature. This is frequently observed in acute osteomylitis and acute appendicitis with abscess or constriction. When the abscess opens normally or artificially the temperature drops suddenly only to rise again after pus absorption. As a rule, in septicema and pyemia the height of the temperature is indicative of the severity of the disease. Each chill and rise in temperature signifies a new crop of germs or a fresh invasion of tissue. This puts us on our guard for metastases and complication.

Pain.—The degree of pain is often one of our stumbling blocks. What is severe in one patient may be slight in another or agonizing in a third. The fortitude of one patient to bear pain, or the lack of in an other is an individuality which must not be overlooked. The pain suffered by sensitive or neurotic individuals has as real an existance in consciousness as the slight discomfort felt by others. We must not allow this to lead us astray in diagnoses. One point in determining real or imaginary pain is the character of the respiration. If pain is real the respirations are quickened and in some cases the pupil is dilated. But the most reliable diagnostic point in determining the true presence of pain is, that pressure over a tender spot almost invariably quickens the pulse. The first evidence of infection is a temperature that does not fall to the normal. Pain and tenderness in the wound are usually though not always complained of. In the absence of pain and increased pulse-rate we may disregard a temperature of 99 to 101 the second day, attributing it to absorption in the wound. If it persists on the

third day, or if the pulse is accelerated and pain complained of, inspect the wound. If mild superficial infection is present there will be redness about some portion of the wound and slight induration. If the infection is more deeply seated pain, induration and tenderness on slight pressure may be the only indications of developing trouble in the deeper portion of the wound. In the presence of continued fever, even if not above 101, and unaccounted for apart from the wound, with the patient fairly comfortable, no tenderness or induration, and primary union taking place, there is often trouble brewing below the surface. In acute wound infection, and this is largely the class of surgery which I have to deal with and which prompts this paper. The above referred to is ushered in by more severe symptoms. Pain is more constantly present when the temperature varies between 99 and 103. The patient's skin and tongue are dry and his expression anxious. Prostration is marked. There may be chilly sensations or even a frank chill. Pulse and respiration are rapid. The wound most likely will be edematous, the stitches cutting into the tissues by reason of the swelling. Induration or fluctuation is felt. When the stitches are removed pus wells out or else the edges are infiltrated angry looking and hot, having not yet broken down. Evidence of lymphaingitis may be present. Instead of this picture we may have a grade of sepsis between these two in which with milder symptoms pus will still be found on inspection. Fatal septicemia sometimes develops from a local focus. When it is possible to do so remove the diseased part entirely and the symptoms will disappear rapidly and recovery ensue. So when we are treating a case of germ local infection threatening life and all palliative measures have failed, and before it is yet too late, we should remove entirely the septic focus, even if it means the amputation of a member whose function is not yet wholly destroyed.

Treatment.—This may be summed up in two words, nourishment and elimination. Nourishment of the tissues and blood. Elimination of pus, elimination of germs and waste products. Sepsis, like typhoid fever, may be considered to be self-limited, provided the patient's vitality can be maintained long enough to withstand the ravages of the disease. In many a case it is a battle royal between the poison in the system and the system itself; but the facts that the worst cases sometimes recover should make us determined never to give up the fight until the patient's heart has ceased to beat. So our first aim is to judiciously feed and stimulate by every channel. The food must be the most nutritious and at the same time the most easily assimulated. The stomach, our mainstay in the struggle, must be carefully nursed and guarded. Avoid all medication that tends to upset it, for with a crippled stomach our vantage is half gone. When the stomach will tolerate it use whiskey in the shape of egg-nog, but don't expect your patient to live on this; the greater the variety of digestible food the longer the stomach will hold out. Of the various meat products the most valuable are panoppeptoin liquid, peptonoids, and tea made from the extracts, which should always be spiked with cherry wine, the addition of cherry wine improves the flavor greatly. Do not resort to these, however, till the patient begins to tire of fresh expressed meat juice. In the presence of renal complications these valuable food products are usually contraindicated. Take advantage of the administration of water to flush the kidneys and fill the blood vessels. If there is one place where we must be more resourceful than another, it is here. Keep the alimentary track clear by remedies least disturbing to the patient, and this I think is saline solution per enema. But little medication is needed and that beyond keeping the excretory organs working is worse than nothing. Hypodermatic stimulation may have to be resorted to early if the cardiac condition calls for it, but don't begin it too early, a pulse of 110 to 120 of good quality and the patient doing fairly well otherwise does not need this stimulation.

It is a bad practice to fire too much ammunition at once, a reserve force held in check until the proper time often carries the case through to success. Just a word of caution against the simultaneous administration of too many powerful cardiac stimulents. I have seen full doses of strychnine, digitaline, atropine and nitro-glycerine given in one injection and repeated in less than an hour. Over-stimulation is as bad, if not worse, than under stimulation, and the use of any cardiac drug without the clear definite knowledge of its physiological action must be depricated.

Operations Upon the Gasserian Ganglion.*

By J. Shelton Horsley. M. D., Professor Principles of Surgery, Medical College of Virginia; Surgeon to Memorial Hospital, Richmond, Virginia.

The cure or alleviation of persistent tic douloureux has been a puzzling problem from the earliest times. No more pitiful object comes under the observation of the practitioner of medicine than the victim of this disease. While it has been truly said

* Read at Tri-State Medical Society, Greensboro, N. C., March 1, 1905.

that tic douloureux, in itself, does not kill, it is equally certain that it is indirectly responsible for a large number of deaths. Suicides are common, and numerous diseases follow in its wake in persons whose constitutions have been weakened by the severe suffering and who, otherwise, would probably have withstood the onslaught of the fatal malady. It is well known that many cases of persistent facial neuralgia are cured by medicinal measures and that large doses of strychnine systematically given up to the verge of its toxic effect will often relieve cases that have not been affected by any other therapeutic measure. These patients should, first of all, have intelligent medical treatment extending over periods of at least months. The search for the cause is sometimes successful, and if a constitutional disease can be assigned as the etiological factor, the prognosis of cure by medical measures is more hopeful. It is hardly necessary to mention the necessity of building up the patient by anti-malarial treatment, where the history of the case seems to point to a malarial origin; of antisyphilitic treatment where venereal disease is suspected; and of personal hygienic measures. But after all these things have failed—as they will in a certain proportion of cases—what is to be done.

It is at this stage that surgical treatment should be invoked. Operations for facial neuralgia had, at one time, almost fallen into disrepute because sections of the peripheral branches of the fifth nerve gave such temporary periods of relief that the operation hardly seemed justifiable for the small amount of freedom from pain that it brought. It has not been twelve years since the operations on the Gasserian ganglion were put upon anything like a scientific basis and it has hardly been a decade since they have been recognized as justifiable surgical procedures.

On account of the large mortality (three deaths in 11 cases) which he has encountered, Dr. John B. Murphy abandoned operations upon the Gasserian ganglion, and in the last few years has turned his attention in the direction of injections of osmic acid into the peripheral branches of the nerve. Naturally, anything recommended by so eminent a surgeon receives instant attention and recognition, but we must not err on the side of over-enthusiasm when Dr. Murhy himself recognizes the fact that injections of osmic acid are not always satisfactory. At the end of a paper dealing with this subject, read before the American Medical Association in June, 1904, he gives the following conclusions:

"Judging theoretically from the experience with incisions, resections and ganglion operations, the relief should not be permanent after the injection of the osmic acid. Time alone must determine the final result of this treatment."—(Journal American Medical Association, Vol. 43, p. 1056).

In this paper he reports a number of cases successfully treated by the osmic acid method and some apparently permanently cured. In the discussion which followed, Dr. Chas. K. Mills of Philadelphia said:

"It does not matter what the pathology of this disease is. The essential thing in the surgical treatment is the complete separation of the cerebral centers concerned with sensation from the periphery. I believe that the best method of treatment is either extirpation of the Gasserian ganglion or section of the sensory root, but I am somewhat unsettled which should receive the preference. My reason for not favoring the osmic acid treatment is that I am usually not inclined toward any peripheral treatment. Experience shows that when one branch of the fifth nerve is involved, sooner or later others, and perhaps all, will be implicated."

Dr. William G. Spiller said:

"As to the pathology of tic douloureux, I have had an opportunity of examining many Gasserian ganglia, probably about 15, removed at operations and have always found degeneration. It matters little whether the disease begins in the peripheral nerve fibres or in the ganglion, because it cannot exist long in the former without affecting the nerve cells of the Gasserian ganglion. The relief of pain after resection of the peripheral branch does not prove that the lesion is primarily in the peripheral branch. The cells of the ganglion are altered by the resection and their function is partially impaired and, until they recover, pain is not likely to return."

Dr. Robert F. Weir of New York City, said:

"The osmic acid treatment failed in my hands many years ago and I do not see how it is any better than the resection of a certain portion of the nerve. The nerve is destroyed by the acid, as would be the case with the resection."

So it is observed that the opinions of eminent pathologists, neurologists and surgeons are still not in unanimity as regards the best method of surgical treatment. It is difficult to see how peripheral resections of the fifth nerve can permanently cure the pain that arises from the diseased ganglion. As Dr. Spiller has remarked, the temporary change in the ganglion cells following peripheral resections of the nerve may afford relief from the pain for awhile, but as soon as the cells of the Gasserian ganglion recover, pain almost always resumes.

It is probably true in the case of operations on Gasserian ganglia, as in operations for the relief of disease of any organ, that no hard and fast rule can be laid down covering all cases. After medical measures have proved inefficient, and if the disease is confined to one division of the fifth nerve, injections of osmic acid or resections of this branch with interposition of some foreign substance, as gutta percha tissue or Von Mosetig's plug, is unquestionably worthy of trial. But in cases in which such operations have proved unsuccessful, and in others in which the disease has persisted for years and involves two or all three of the divisions, no permanent relief can be afforded except by an intra-cranial operation. Abbe claims that the pathology of tic douloureux consists in an ascending degenerative change in the peripheral branches of the fifth nerve which finally reaches and involves the ganglion. If we can head off this process before the ganglion itself is involved, the operation recommended by Dr. Abbe is unquestionably the proper procedure, provided the first division is not involved. But if the gangiion is diseased or if the first branch is seriously implicated, removal of the ganglion itself alone furnishes hope of permanent cure. It must be borne in mind that the technical difficulties of the Abbe operation are practically just as great as of the total excision of the ganglion, because the same steps have to be gone through with in exposure of the ganglion and in cutting the second and third divisions; the only other thing necessary in the case of the excision being to sieze the ganglion and twist it out. The great advantage, however, of the Abbe operation is in its lowered mortality, and this is due to the fact that the deep origins of the fifth nerve are intimately connected with the vital centers on the floor of the fourth ventricle, and in twisting out the ganglion so much shock may be occasioned as to cause death within a few hours, or else the shock so weakens patients who are already exhausted by suffering that other complications are more liable to set in. It cannot be too strongly impressed upon any one who wishes to undertake either of these operations that they must be rehearsed a number of times upon the cadaver before being attempted upon a patient. This fact, which has been so earnestly urged by Cushing of Baltimore, will be instantly apparent to one who does his first operation upon the cadaver. An accurate knowledge of the anatomy of the parts and experience in dealing with hemorrhage are essential to the successful performance of these operations. If excision becomes necessary the ganglion should always be removed in one mass so that its anatomical features can be recognized. The methods of the earlier operators in merely attempting to break up the ganglion or curette portions of it away were both dangerous and unsatisfactory, pain frequently recurring after such procedures. With the exception of one case reported by Keen where there was an endothelioma of the ganglion and probably central trouble, there are few, if any, well authenticated cases in which the ganglion was removed in its intirety and relief from pain was not permanent.

I desire to report the following cases, one illustrating the complete excision of the ganglion and the other the method of Abbe. Both of these were operated upon at the Memorial Hospital within the past eighteen months.

Case I.—An old lady 62 years of age; until twelve years ago had enjoyed good health and been remarkably vigorous; was referred me by Dr. George Ben Johnston. For 12 years she had suffered almost constantly from typical tic douloureux which for the last six or seven months had grown steadily worse; all medication including morphine failed to relieve the intense pain. An operation had been recommended some years ago but had been refused. Finally she consented to an operation, however dangerous, that would give her a chance of relief. Operation, October, 1903. Ether anesthesia. The external carotid was first ligated and the wound closed with catgut sutures. A small horseshoe flap, consisting of the scalp and pericranium, having the zygomatic process as its base, was turned down. Care was taken not to carry the incision below the zygomatic process for fear of injuring those branches of the facial that supply part of the occipito-frontalis muscle. The zygoma was bitten away with a pair of bone shears, and the flap further reflected down to the pterygoid ridge. A trephine then removed a button of bone and more bone was removed with rongeur forceps down to the pterygoid ridge and including a portion of this ridge, so that the opening in the bone came to within a short distance of the foramen ovale. At various stages the operation had to be suspended while the wound was packed to control venous oozing. After removal of a sufficient amount of bone, the dura was elevated with the finger and the ganglion exposed. The second division of the fifth nerve came most prominently into view; this was freed by blunt dissection, then the third division. The dura was separated from the upper surface of the ganglion and the ganglion freed from its bed on the petrous portion of the temporal bone. The second and third divisions were caught up

in a blunt hook and divided with scissors and a light pedicle forceps seized the ganglion just behind the crotch between the second and third divisions of the nerve, care being taken to embrace the whole width of the ganglion. At this point, packing had to be again resorted to in order to control venous oozing. When the bleeding had been somewhat checked, the ganglion was twisted several times, so freeing it from the ophthalmic division and also bringing out about one-half inch of the sensory root; the rest of the sensory root was then divided with scissors flush with the dura mater, and the ganglion removed intact. The wound was packed with washed iodoform gauze, the anterior portion being closed by subcuticular sutures of silk-worm gut and the gauze brought out of the posterior portion. The patient suffered from shock, but recovered rapidly, the wound running an aseptic course. There were ptosis and complete paralysis of the extrinsic and intrinsic muscles supplied by the third, fourth and sixth nerve, but this was evidently functional, due probably to pressure from the packing or else to stretching of the nerves while twisting out the ganglion. The condition was a temporary one, disappearing within less than two months. The right eye which had been irrigated previous to the operation was bandaged and, with the exception of conjunctivitis occurring two months after the operation, has given her no serious trouble.

GASSERIAN GANGLION REMOVED.
(Natural Size.)

The patient was completely relieved from pain and all of the area supposed to be supplied by the various divisions of the fifth nerve was found devoid of sensation of touch, temperature and pain. It might be mentioned here that the sensory supply of the third division of the fifth nerve does not come as far down on the jaw or neck as many text-books on anatomy seem to indicate. As a matter of fact, this nerve does not supply sensation to the skin quite as low as the lower border of the jaw.

Case II.—Mr. F, C. B., aged 64. Referred by Dr. H. H. Levy. Previous health good. Patient of temperate habits and has never had any serious disease except malaria from which he suffered for two or three years in the late sixties. About two years ago he was taken with pain on the right side of his face and was examined by several dentists who found no trouble with his teeth. Since that time he has never been free from pain, though the attacks came on at some times more severely than at others; heat or cold would produce an attack and again they would develop spontaneously. They seemed to affect the area supplied by the second and third branches of the fifth nerve. The patient consulted a number of doctors, among others a celebrated neurologist of New York City. Operation March 28, 1904. Gas-ether anesthesia. The external carotid was ligated. A straight incision was then made with its base over the middle of the right zygoma and extending upward for about four inches. Incision was to the bone and the margins of the wound, including the periosteum, were freely dissected up. With a trephine a button of bone was removed from the denuded skull and the opening then enlarged downward, forward and backward until it was about an inch and a half in diameter. A wound in the dura which was made by the trephine at a very thin portion of the skull was closed and the dura elevated from the middle fossa with the finger. Bleeding was quite free and seemed to come largely from the bone; it was readily controlled by packing and the operation at several times had to be suspended to check the hemorrhage in this way. After the dura had been separated, the brain was elevated with a flexible retractor. A spicule projecting from the anterior surface of the petrous portion of the temporal bone, was removed with bone forceps and the dura further separated until the superior maxillary nerve was exposed. The ganglion and the inferior maxillary nerve were so deeply embedded in the bone that they could not be seen through this incision, though they could be readily felt. The necessary manipulations to divide the second and third divisions of the fifth nerve, to remove the adjoining portion of the ganglion and to interpose rubber tissue were accompanied by so much bleeding and as exposure in this case was very limited, it was impossible to finish the operation satisfactorily. The wound was packed with washed iodoform gauze and the patient was returned to his room in good condition. On March 31, three days later, he was again taken to the operating room, packing removed and the brain elevated. A comparatively dry field was found. The superior maxillary nerve was divided at the foramen rotundum and as much of it taken off as possible along with a small portion of the ganglion. The inferior maxillary branch

was particularly difficult to divide on account of its deep situation in the bone. This nerve was, however, freed by blunt dissection, grasped with forceps and divided, after the ganglion had been freed from its attachment to the petrous bone. Hemorrhage was then persistent. The field was cleared and the dura elevated along with the ganglion and a piece of rubber tissue about an inch and a quarter wide by two inches long laid over the floor of the middle fossa, covering the foramen rotundum and foramen ovale, and the brain allowed to fall upon this. The outer portion of the wound was packed with iodoform gauze, most of the straight incision being closed with sutures.

The patient made an uneventful recovery, though he was somewhat alarmed when he recovered consciousness to find that sensation as well as pain had disappeared and for a time insisted upon believing that he was paralyzed. There has been no recurrence whatever of the pain, since the operation and the patient expresses himself as satisfied and greatly relieved.

Uterine Reflexes.

By John N. Upshur, M D., Richmond, Va., ex-President and Honorary Fellow of the State Medical Society of Virginia, and of the Tri-State Medical Association of the Carolinas and Virgina.

At a meeting of this Association at Richmond in 1901, I presented a paper on this subject. My object in that paper was to call attention of gynæcologists to uterine reflexes as an element of danger in operative procedure, or examination of the uterus, and the point was illustrated by two cases in my own clinical experience, which gave practical emphasis to it. In recurring again to this subject, I desire to take a wider range, and discuss the influence of uterine lesion in giving prominence to symptoms attracting attention to other organs of the body, and proving intractible to relief by internal medication, and the cause of much and protracted suffering to patients. The highly organized nervous supply of the pelvic organs of the female should never be lost sight of, and it is a safe rule, in all nervous affections of women, to seek first for the cause in the uterus or its appendages. The trouble may be so insignificant as not to have attracted the woman's attention. It may be a cause centered in these organs, or acting from without, yet exerting a baneful influence on them and through them on the general system. We are all familiar with gastric disturbances due to the developmental conditions of early pregnancy, and the great difficulty often experienced in relieving such a condition, which may grade from one of simple discomfort to one which puts life in jeopardy. I plead for an intelligent investigation of the causes of this condition, they are not always the same, nor are they always capable of being removed, or relieved, until sufficient time has elapsed to lift the pregnant uterus above the brim of the pelvis, and in some cases not until the termination of pregnancy. But these last conditions are extreme and I believe not often met with. If the nausea of pregnancy is due to psychic influences of a new physiologic condition we must look for relief from such remedial measures as will put the general health upon its highest plane. Mental diversion, life in the open air, a concentrated nutrition, and such local management as will be soothing and quieting to the whole pelvic nervous system avoiding if possible resort to drugs. Soothing vaginal douches, a carefully adjusted abdominal bandage, that will preserve an equitable temperature and circulation in the abdominal and pelvic viscera, and save the uterus from jostle and undue visceral pressure, and farther rigid regulation in the matter of the sexual relation. I have seen intractible nausea, last for ten weeks in one extreme case, promptly relieved by replacing a retroverted womb, and retaining it in its proper position by a suitably adjusted Hodge pessary, worn until the uterus is well out of the pelvis, this has been a frequently repeated experience with me. Again, cervical lesion, such as granular erosion, may be the source of nausea. I recall one case which came to me from the hands of a very capable physician. The woman pregnant with her fifth child, drugs had been unavailing, and the Doctor had called to bring on an abortion, which she declined, and sought advice elsewhere. She was about the 3rd month of pregnancy. Examination revealed a retroverted uterus and an angry looking granular erosion of the os, with a dirty, ropy mucous discharge from the cervix. The cervix and os were carefully cleansed and a free application of Churchill's Tinct. Iodine made, and a suitable pessary applied. Relief was prompt and the nausea entirely disappeared within forty-eight hours and she went on most satisfactorily to the end of pregnancy. Again I have seen prompt relief come from the application of a belladonna plaster to the epigastrium and drop doses of Fowler's Solution three times a day. I have dwelt on this condition because it is so common and often so troublesome. But it is chiefly with reflex troubles from the non-pregnant uterus which I purpose to discuss. Digestive disturbance may be expected from uterine lesions of various kinds when we think of the analogy of the pregnant uterus. The intensifying of the

trouble at the time of, and through the menstrual period. Sometimes the reverse—relieved when the period is established. I have now such a case under observation. The period is now irregular in return, scanty and painful when it comes. The girl is a trained nurse, has a coated tongue, lack of appetite, and more or less constant sense of nausea Examination revealed a conical cervix, canal contracted, anteflexion of the organ, and endometritis. Her tongue has remained coated and stomach disturbed in spite of all treatment. The result following divulsion and curettement was complete relief of digestive disturbance, tongue cleaned up and appetite returned. The first twenty-four hours after operation, some nausea and increasing stomach disturbance until packing was removed and a bichloride douche given. In another case, patient 42 years old, long standing gastro-intestinal indigestion with marked intestinal catarrh. Has borne four children, labors uneventful, except that in one of them she had a left lateral laceration of the cervix. Cervix was greatly enlarged and chronic endometritis of the cavity of the uterus. Menses regular but scanty and painful and dark colored; appetite irregular and uncertain and very few articles of food could be digested at all. Drugs brought only partial and temporary relief, and she lost flesh very perceptibly. One physician who saw her diagnosed gallstones and urged operation, which she declined. She entered the Virginia Hospital, the uterus was curetted and the tear in the cervix repaired. The digestive disturbance was better on the day following the operation, recovery from which was most complete. Seven weeks after the operation she reported that she had had no indigestion since operation, except once when she had eaten a banana before retiring and that was slight. Her general condition had improved markedly and she had gained 14½ lbs. in weight.

In another case under my care from one of the lower counties of Virginia suffering from digestive disturbance, with almost total loss of appetite, anæmic from excessive flow at period, curettage revealed extensive granular degenerative disease of the endometrium, operation was followed by marked improvement in the digestion and general improvement in health though patient has not yet entirely recovered. Some years ago I was consulted by a young woman about a localized and very offensive perspiration (I could not myself detect the odor) it covered the trunk from the centre of the sternum to the right and from the root of the neck to the floating ribs. To her it was a serious matter, she said it smelled like old tobacco bags. She was engaged to be married, and feared this condition would endanger her prospects. Examination revealed a misplaced womb, its reposition and a suitably adjusted pessary relieved promptly this unpleasant symptom. I recall persistent morning sickness in the case of a single girl, manifestly due to disease of the left ovary. The sub-mamary pain on the left side as a symptom of ovarian lesion is constantly seen. Nervous symptoms as the outcome of the use of means for the prevention of conception have only to be sought for to be found in this class of cases. I have had recently under my care such a case. A robust, fine looking girl, married a year, came into my hands from another physician. She was the picture of health but had frequent nervous attacks daily, emphasized at the time of her period, her periods had never been as copious as her physique demanded, but prior to marriage she had no nervous spells. These took the form of a mild chorea, irregular jerking of the upper extremities, sometimes on one side sometimes on both, rigidity of the jaws, or simply mental depression, and other forms of hysteria. I found by interrogating her husband that she was opposed to bearing children early after marriage, and had been in the habit of using a syringe after intercourse. I insisted that this should stop. Vaginal examination revealed a highly colored cervix and endometritis of the uterine cavity. A curettage was done, removing a number of granulations from the cavity of the uterus. Her subsequent period was better with decided amelioration of the nervous symptoms. At this writing she is virtually well. Reflection will explain how preventive means of conception can be very harmful. The physiologic condition of the sexual act, erection and congestion of the cervix uteri during the act, the subsequent relaxation after the orgasm, when the cervix dips into the vaginal cul-de-sac, and physiologic relief comes, followed by a sense of well-being and composure to the woman. Any means used which interferes with this natural condition, brings its legitimate result, unrelieved congestion, eventually becoming pathologic, cervical and corporeal endometritis, an irritation constantly intensified by each repeated act, to say nothing of the moral reflex on the nervous system of the consciousness of wrong. To my mind there is nothing more degrading than the desecration of the marriage chamber by the introduction in to it of the means in vogue in a brothel. The putting to the fore the essentially animal side of a mysterious function, and making a solemn and God-ordained union one of convenience for animal gratification. The highest instincts of manhood and morality demand

that the physician should always, under all circumstances set his face as a flint against all of these methods, and by his plainness of speech impress on his patients the moral and physical wrong of which they are guilty. And yet I fear that in many instances the Doctor is particeps criminis, both in the failure to condemn and even in the positive approval by giving the information sought by persistent patients for means of prevention. I do not believe that there is any innocuous means, I do not believe that any condition arises which justifies the Doctor in giving such information unless in the one instance of conveying venereal infection to the mother or fœtus, and even then it were better that the man and his wife should live apart. The plea that another pregnancy may, and in the Doctor's judgment would prove fatal to the woman, does not justify. I had this impressed upon me most forcibly in the one instance in which I gave the woman the means of preventing subsequent conception. After a labor in which her life came very near being the forfeit, I gave her the necessary information, upon the promise that she would not divulge the secret. Forgetting, on one occasion, two years subsequently, to use it, she conceived and I anticipated serious consequences. She had an uneventful labor. Subsequently she resorted again to the means of prevention. When two years old her child died. The mother looked upon his death as a judgment from the Almighty, and was on the verge of insanity. She abandoned all means of prevention, but was sterile for several years. Subsequently she bore four robust, healthy children, in perfectly normal labors. This patient had the experience of always having albuminuria, but active treatment during pregnancy prevented her ever having a convulsion when labor came on. I have seen eye trouble relieved by curing the uterine lesion. Severe headache consequent upon uterine irritation when lesion exists, coming on as the result of over fatigue at the time of the period, or precipitated by sexual intercourse. Patient in one case having violent opisthotonos in addition and most acute suffering. Relief obtained most promptly and efficiently by counter-irritation to the hypogastrium or anodyne suppositories in the rectum, and cure affected by active treatment of the uterus during the intermenstrual period.

I hope I have said enough to be suggestive, time would fail me to take up in detail and discuss all of the various reflexes that may be possible from lesions of the pelvic viscera.

The County Medical Society, Its Use and Abuse. *

By Lucien Lofton, A. B., Ph.D., M. D., Emporia, Va., Ex-President Seaboard Medical Association Virginia and North Carolina; Ex-Associate of Anatomy, Southern Medical College, Atlanta; Delegate from Virginia International Congress Tuberculosis, St. Louis, 1904; Secretary Southside Virginia Medical Association; Health Officer to Greenville Co. Virginia; Physician to Greenville County, Virginia, etc.

Within the past five years the author has noted with an unusual degree of interest and pleasure the gradual growth of County Medical Societies throughout the South.

Organizations a few years past which appeared almost an impossibility have sprung into existence and now appear upon a footing that might be stated as staple, yea, I can add wholesome and flourishing.

Physicians are beginning to awake from that state of lethargy, that has been too characteristic of their clan. Men a decade ago who only occasionally lent their aid and speech in behalf of fraternal union now eagerly and jealously guard the golden band that has made it possible for them to meet ensemble and parry ideas.

Truly the county medical society is the salvation of the individual hhysician, and the body medical. Without such an organization the campaign that is being waged against the profession, by some of its members—and a host of laymen, not only puzzle but stagger the investigator. For many years the physician in the rural districts, has not only had to wage battle against pestilence and death, but has had to take hold from time to time of all the stamina that he might possess and enter into a fray, that was both displeasing and undignified, that his very existence might be on an average with his fellowman.

The good and true men of the medical profession, throughout the counties of the Old Dominion, may have been belittled and besmirched by the tongue of scorn and envy, but thanks be to that eternal principle of right and justice, they are winning today and forging to the front, clearing a path that generations who follow them as they pass in their wake will pause ever and anon to call them blessed. The laymen is being rightly taught by the doctors of the county bailiwicks, that he must not only not attempt to drag the name of the sacred calling of medicine into the debris of his gossip and derision, but must first recognize always, "that honor and shame from no conditions rise, act well his part there is where the honor lies."

I believe that a great deal of this petty

* Read before Virginia State Medical Society, Richmond, October, 1904.

feeling of unrest and jealonsy which has pervaded the rank and file of the medical profession all along through the developing ages of our science, has been in no small measure due to the deleterious influences of lay gossip. Then why should we as members of one of the greatest bodies extant, carouse or assent in any particular, when the monster demon—gossip—raises its forked tongue and begins its dethroning vituperations against the noble members of our holy and sacred vocation. I draw no impossible picture, nor do I hint at an overdrawn suspicion, but you who hear me, feel in your hearts the justice of my remarks and mentally sanction what I say, with a hearty amen. Then, from whence does succor and relief come? I most emphatically declare organization. If we do not organize how can we fraternalize? If we do not come together, how pitiful we are in our weakness. If we do not extend a hearty and soulful hand of fellowship, we are weary and undone.

Now, touching more particularly the title of my paper, I trust that in doing so, you will not think me immodest in making a personal reference. Since my graduation in medicine, one of the greatest aims of my ambition has been to know intimately my conferees, especially those with whom it has been my pleasure to daily associate. In this way, I learn to know my man, his worth as a gentleman and as a doctor. Herein lies the golden key of fraternal success. Further, in acquainting myself with my colleagues, they in turn become aware of whatever material of which I am made. Certainly does this not bring us into closer touch.

It has been my unqualified pleasure within the past eight years to work hand in hand, and side by side with some of the truest and best physicians in the world. I make reference to the doctors of Virginia. From them I have gained much strength and knowledge, that would never have been mine, had I, clam-like hibernated in my bailiwick, and lived unto myself.

Going further, I might mention that during the latter part of the nineties, I was honored with the Presidency of the "Seaboard Medical Association." At that time, the Seaboard section of Virginia and North Carolina, owing to its geographical distribution, suffered no little from the fact that the men had practically no convenient medical organization. It appeared to me as it did to many others, that the fraternity should coalesce and crystalize into a body unity. How this succeeded you well know. Later the "Southside Virginia Medical Association," comprising the counties of Prince George, Surry, Sussex, Southampton, Greenville and Brunswick, was organized with a goodly number, and its success may here be proclaimed magnificent. I speak of these associations particularly, because in a small way, I have labored for their future and they have developed my immediate section wonderfully. To estimate the good that has come to their members would be unnecessary, for has not every member of these bodies received a lasting benefit.

The spirit of suspicion which permeated our ranks has been eliminated and we meet now with a sincere greeting and know our man upon the spot. Surely my esteemed colleagues, are we not brothers indeed?

"This brings me to some of the abuses of the County Medical Society." The worst thing that can befall a medical society, is to inject into it that heterogenous nondescript, which sallies forth under the sobriquet of politics. This monster when handled by the master hand, is an unknown quantity and many county medical societies, have been laid low, by its bainful influences.

Let no man be so bold as to lay claim to the honors of a dictator herein but always recognize this one important fact that the smallest member of a county medical organization is entitled to the same recognition you might give the ablest light of your body. Never make a promise to your society that you cannot reasonably fill. It is far better not to disappoint than it is to receive premature congratulation. Again, it is a great deal wiser to live with a silent tongue than to have your abode in a glass dwelling, the reason being that if you cannot express a favorable opinion of society and its members, breathe not unto any man dissent for there is nothing more beautiful and wholesome than to say, we are friends indeed. Do not even impune publicly the motive of a contributor to your program, but rather if occasion demands, quietly seek him as a friend and offer any honest conviction you might to present. Never appear as a burden upon your body, but always seek to do your part whenever and wherever you may.

Always remember that a county medical society is not so much for your upbuilding, but is for the uplifting of your friends and the profession. Higher than your own society is that of your State association, of which you are an integral part, and remember a divided house is a mistake. Make it a point to attend every meeting of your local society, and impress upon all legitimate practitioners of your community, the great importance of having a part to play and continually rehearse their parts. Never in any instance display one iota of jealousy, if you do you are an enemy to yourself and

a thorn in the flesh. If you have a just grievance air it like a man, and you will be met like a man and thus hard feelings will be avoided.

I have enumerated some of the abuses of a county medical society, so bear with me a few minutes while I call your attention to some of its uses.

As has been outlined, the men are brought into coaptation, as it were. Their mental and moral possibilities are laid bare, their follies and their foiables are made to pay homage to this and to that mind. Their shortcomings are presented and understood. Their attainments are displayed first hand fresh from the field of action. Their ideas are given from no other cause than the good of your immediate locality and when in perfect harmony many new side-lights will be turned upon you for your betterment, and every day experiences offered as food for thought.

They discuss in intimate relation, the source of making your revenue larger—safer, and staple, they throw out protecting hints about this phase and that feature of the local medical life, that only long and varied experience will teach. In thus coming together you secure a protection that otherwise is impossible. My whole soul is alive when I repeat, "If we do not organize, how can we fraternalize?"

The Management of Hemorrhage in Obstetric Practice.

By I. A. McSwain, M. D., Ex-President Tennessee State Medical Association; Ex-President Tri-State Medical Society, Arkansas, Mississippi, Tennessee.

The hemorrhages that are met with in the practice of midwifery are mainly of three varieties: that of placenta previa, abortion, and post-partum.

It is not the design of this paper to discuss all the causes or pathologic conditions involved, but to treat of the *manangement of hemorrhage* as it occurs in the conditions above named.

Hemorrhage from the womb in placenta previa usually makes its appearance during the latter months, more often during the last five weeks of pregnancy.

In regard to Ceassarian section in cases of placenta cervia, authors are somewhat divided in opinion, but in the aggregate it is claimed that under favorable conditions, that is where the mother has not been exposed to infection from the tamponade, nor lost large quantities of blood, and especially if the cervix is closed and rigid, making speedy delivery problematic or doubtful, Ceasarian section is to be recommended as the surest method, in the interest of both mother and child.

A discharge of blood at such a period should excite greatest concern upon the part of the patient and close attention and watchfulness on the part of the attendant. Rest in bed, avoidance of any fatigue or excitement, light diet and due attention to the excretions. If the hemorrhage occurs frequently, or is copious, measures should without delay be instituted to bring on labour. For this purpose as well as to temporarily check the bleeding tamponade should be resorted to.

To be effective the vagina and vaginal cul de sac must be thoroughly and firmly packed, either with aseptic cotton, wool, or gauze, pledgets of which having been first soaked in sterile hot water should be introduced, until the canal is well filled. But this should not be considered as sufficient for the time to permit of the retiring of the physician, except for a short time, for it would be exceedingly difficult to so firmly pack the material into the vaginal canal that it would not soon become to a degree loosened, for the canal is elastic and capable of considerable distension, which the very presence of the tamponade is likely to provoke, and should the doctor depend on the tampon for any considerable length of the time, he might return to find his tampon loosened, and possibly expelled, and the patient exsanguinated.

Tampon, but stay with the patient and watch and examine. If dilation is still not sufficient tampon again, but watch. By persistence in this course you may be able to bring on and terminate the labour with safety to the mother, and possibly the child also. There is one other method which is rather unique, and so far as known by the writer is not recommended by any author, but it commends itself as being rational; that is introduce gradually the whole hand into the vagina well up to the os uteri, then double up the hand or "fist" and hold it in that position.

It appears that this would have a two-fold purpose of serving as a ready and available tampon firm and unyielding, and is directly under the supervision of the attendant. He can readily perceive the process of dilation and the extent of the bleeding, and it "ties him on" to the case, and being *present* he will be *prepared* for any emergency that may arise.

But there are cases that the physician may not be called until there has been copious hemorrhage and there is no time to wait, but to save the woman forcible and speedy dilatation and delivery offers the only chance.

In these cases the physician must introduce his hand as speedily as possible into the uterus and if the head presents, turn the

child and bring down the feet, and with nature's efforts assisted by his own, complete the delivery, secure an empty womb and firm contractions.

The length of this paper would be too great to attempt to give specific suggestions, and we must pass on to consider the hemorrhage of abortions.

In a majority of cases the physician is called too late to prevent abortion, and must deal with a process more or less incomplete. In many cases he will have found the fœtus already expelled and the hemorrhage is kept up by a retention of the placenta. To deliver this at once will complete the process and arrest the bleeding. This may be done in some instances with the finger, in others the curette will be required.

I am aware that some writers insist that the finger is all that will be needed, and denounce the curette as an instrument of danger, but the fact remains that in a muscular woman with a small introitus, it is exceedingly difficult, if not impossible to explore the interior of the uterus with the finger, especially so if the operator has a short finger and a large or thick hand; in such cases the curette is indispensable, and with a dull curette there is scarce any more danger than with the finger. But which ever instrument is used, one thing is absolutely essential, that is the entire removal of the uterine contents. *Be sure that object is accomplished.* Then thoroughly with a reflow catheter or donche wash out the womb, and to secure further drainage as well as to stop future bleeding tampon the womb and vagina moderately firm with gauze. You can then leave the patient with a consciousness of her safety.

But there are cases of abortion where the hemorrhage may have been so great as not to permit the necessary preparation of the patient and the time and labor required for removal of the uterine contents, without seriously endangering the woman's life. In these cases do not try at the moment to empty the womb, but speedily pack a strip of gauze into the womb and firmly tampon the vagina, and having thus temporarily checked the bleeding use restoratives, and wait until the patient rallies from the loss of blood. Then you will often find after a time that the tampon has had the two-fold effect of staying the hemorrhage and of producing dilation of the cervix and exciting contraction and the ovum and secumdines will be, on removal of the plugs, found already expelled, or very easily detached.

In all cases of abortion prior to the third or fourth month the tampon can be used with perfect safety when it is desirable, without fear of concealed hemorrhage, as the uterus at that stage of pregnancy has not the capacity or elasticity sufficient to allow the retentian of enough blood to endanger the life of the patient.

One of the most harmful proceedings in abortions is to rely on the use of ergot to arrest hemorrhage. It is not only practically useless but by producing contraction of the uterus causes a rigid condition of the cervix, thereby preventing the escape of the uterine contents and the hemorrhage proceeds unchecked. Remember the leading object, *almost the sole object*, should be to *empty* the womb. To do this, there *must* be a sufficient degree of dilatation of the os and cervix. The tampon will secure this result, and at the same time control, temporarily, the bleeding.

Post Partum Hemorrhage.—A sudden and alarming hemorrhage following the birth of the child is one of the most serious conditions which confronts the practitioner. In order to be successful in the management of it, preparation should be made in advance. The doctor must know how and what to do, and also have *with him* the necessary outfit that can be called into requisition in a moments time. True, these cases are not numerous; hence, are apt to come upon us unawares, *while men sleep.*

It has been the practice of the writer for many years (ignoring the teachings of some authorities) as soon as the child has been born, to proceed *at once* to the delivery of the placenta. This is easy. Slight traction on the cord and a strong grasp on the uterine tumor brings away the placenta, entire; provided, this is done before the womb by contraction, partially closes the cervix and holds the placenta a prisoner in the uterine cavity. I do not believe much in the so-called adherent placenta. I have heard marvelous tales about "the after-birth growing to her side" and the learned (?) doctor having to tear it away. There are, perhaps, such cases, but their frequency should excite our incredulity. Such supposed instances, being most often neglected cases, and as just stated, retained by the mechanism ef the uterus.

Removal of placenta *immediately* in its entirety removes one of the chief sources of post-partum hemorrhage, and this can almost without exception be accomplished, if these suggestions are carried idto effect. If you wait fifteen minutes or half hour as was formerly taught some of us older practitioners, it may then become necessary to introduce the hand into the uterus in order to bring away the placenta, and in so doing possibly we tear it into fragments and leave portions of it behind, which most likely will prove a constant menace, perpetuating the bleeding; and perchance, our hand has left

in the womb seeds of a coming harvest fraught with most disastrous results.

Never ought the hand go into the uterine cavity, unless it is imperative, nor then until that hand has been rendered clean and as nearly aseptic as possible. If ever a rubber glove is needed in the practice of obstetrics it is in an event requiring the introduction of the hand into the uterus.

We should always remember that the prime object in order to avoid post-partum hemorrhage, or to arrest it, is to secure an empty womb and a good contraction. If the bleeding persists after this condition has been obtained we should suspect its cause to be in wounds of the birth canal at some point, or possibly, in a constitutional dyscrasia of the woman or a predisposition, hereditary or otherwise, to hemorrhage.

But the womb has been emptied and contracted. Shall we pronounce the case out of danger? No, wait. Keep the hand on the uterine tumor and maintain contraction until we know it is permanent. Otherwise, we may be recalled an hour or two later to find our patient in partial or complete syncope from loss of blood.

We should never depend upon what we see on the cloths. No hemorrhage may be apparent externally, and yet the patient may be bled to death. A good sized clot forming and lodged in the cervix produces a dam to the current. The womb elastic, and wanting in contractile nerve and muscular force, accommodates itself to this pressure from within and relaxes more and more, its cavity being sufficiently large to retain enough of the vital fluid to produce death.

Obviously the treatment of this state of affairs is to turn out the clot, promote contraction and sustain the action of the heart by restoratives.

Former methods of arresting post-partum hemorrhage and of securing permanent contraction of the uterus were varied, and in a great measure slow and unsatisfactory.

These consisted in the introduction of the hand and doubling it up in the uterus. The introduction of ice, or of sponges soaked in vinegar, the application of cold to the abdomen and genitals, the injection into the womb of styptics and astringent tamponade of the uterus, etc., together with the administration of ergot, acetate lead, opium, and other drugs which it was thought had the effect of lessening hemorrhage in general. We presume that not very many practitioners would in severe cases depend on these rather doubtful measures at the present day.

What has been said above in regard to an empty uterus that is entire delivery of fœtus and secundines, as well as clearing out clots and debris of every kind, should be constantly borne in mind. Then to stay further hemorrhage, produce permanent contractions and administer restoratives. These in brief constitute the leading indications for treatment.

The most rational and effective method of meeting these indications is copious irrigation of the uterus with hot water containing common salt. Not *warm water* but *hot water*. A teaspoonful of clean salt to the pint of the water (the normal salt solution). A clean fountain syringe with an aseptic nozzle, a Kelly pad or some sufficient protection for the bed, constitutes the necessary apparatus for this procedure to protect the external genitals from being scalded. Vaseline should be freely used over the parts. The irrigation should not be limited to any special quantity of the liquid, but kept up until the uterus stops bleeding and contraction is secured.

The good results to be speedily reached by this treatment are quite apparent. It is at once aseptic, hemostatic, and restorative. The salt solution, a good portion of it is taken up, both by absorption and through the uterine veins and quickly rallies, the fagging heart preventing syncope from loss of blood. The sterile hot water acts as a powerful hemostatic and being aseptic, if properly managed, leaves no danger of septic infection of the endometrium. If thought necessary ergot, strichnia, atropia and morphia may be used, but always hypodermatically.

It is folly in these extreme cases to administer medicines by the mouth. Time is too precious to waste in this way. What you do must be done quickly. The physician must have his wits about him—to falter is to fail. Act promptly and with discretion and judgment, and the woman is saved. Then feed her with hot milk and water and soon you will see the color come back to pale face, and the flickering pulse resume its normal beat, and a sense of security be felt by both patient and attendant.

Contributory to the active treatment, we should in extreme cases lower the head, admit plenty of fresh air and if need be resort to the hypodermatic or intravenous injection of the normal salt solution.

Mr. Editor, this is a large opportunity to say things, as the subject is one of interest, and of great importance, one that requires prompt interference and intelligent management. I have tried in this rambling way to emphasize a few well known facts, and shall feel amply repaid, if catching some degree of inspiration by the reading of this article, some practitioners may deliver from imminent peril some woman whose life might otherwise have drained away and left behind a disconsolate household.

A Higher Standard of Physical Manhood. How May it Be Attained?*

By Jere Lawrence Crook, A.M., M.D., Jackson, Tennessee.

A primal instinct of humanity is the law of self-preservation. Upon it depends the perpetuity of the race, and all mankind—both civilized and barbarian—recognize and obey it to a greater or less extent. An outgrowth of this universal law are all efforts on the part of individuals and nations to seek a higher standard of physical manhood, and all measures adopted to lengthen human life; for a longer span of human existence inevitably results from a nearer approach to physical perfection. It is fitting that the time and thought of the medical profession should be given to a subject of so vital and universal importance, one so intimately identified with its highest aims, for every movement that tends to lessen human suffering, lengthening human life and augment human happiness finds sympathy and support from the disciples of Æsculapius.

It is passing strange that the medical profession, deeply concerned as it is with the welfare of the race, and earnestly engaged not alone in combating disease, but striving in every way to prevent its encroachment, should have neglected for so long to teach the people the important lesson that a sound, vigorous, properly-developed body is the best preventive of disease and the truest guarantee of perfect health and long life.

The value which is ascribed to individual life is a distinctive mark of modern civilization, yet how little has been done, on large lines at least, to secure for the masses of the people, who do the work of the world, that degree and maintenance of physical well-being implied in the phrase, *mens sano in corpore sano*—a sound mind in a sound body.

Even with our modern knowledge of anatomy, physiology and biology, how tardy and indifferent has been our approach to "the consummate beauty of physical form" for which the Greek and Roman was famed. They both alike knew in a high degree the value of bodily exercise, and in their competitive games as well as in their training for war, adopted a system of physical education which produced wonderful results.

They knew nothing however of biology and the marvel of the body's cell structure, "the key which," it may be said, "has opened to a modern age the doors of its microscopic vision and revealed almost the secret of life itself." They simply observed that the increased bulk, strength and energy of the organ or limb is in relation to the amount of its employment, and they gave it employment accordingly.

When we of the present day, in the light of modern science, contemplate the wonderful results accomplished by the Greeks and Romans in developing and training their bodies, we certainly should be stimulated to do greater things for ourselves and our children.

How, then, shall we as a race attain a higher degree of physical development? At the very outset we are confronted with another question of paramount importance. Is the vital capacity of our race deteriorating, and must we face the disconcerting fact that the battles of the future, whether on the field or in the workshop must be fought with blunt weapons, with dulled brains and with stunted frames? Dr. Robert Farquhaurson, member of the British parliament, after a thorough study of the conditions in England believes that physical deterioration of the British race is a real and threatening danger deserving the attention of the best and most experienced minds. He says, "a detailed survey of the evidence leads me to the belief . . . that we are actually face to face with a grave national emergency, which requires immediate attention if we are to stave off national disaster." A comparison of this report of Dr. Farquhaurson with the conditions in America to-day, reveals the fact that we are facing the same problems as our British cousins. The evils that menace the physical development of the race are the same here as there. Among these let us consider, the effects on the race of over-pressure on children in the public schools; overcrowding of tenements in cities, with lack of pure air and sunshine; juvenile cigarette smoking; and overindulgence in alcohol.

Investigation has revealed that large numbers of English children come to school breakfastless, and remain there dinnerless; that frontal headache, St. Vitus dance, neuralgia and dental caries are too often observed: that short sight is on the increase, and insanity on the rise. Sir James Browne, whose report the above facts were obtained, even goes so far as to ascribe the augmented total of deaths from nervous disorders in later years to the unstable equilibrium established during those early and critical periods of growth and development.

Another present day menace to physical health in this country which is now attracting much attention is over-crowding of tenements and their insanitary condition.

The city of Buffalo has recently inaugurated a crusade against these pernicious

* President's Address, Tri State Med. Assn. of Miss., Ark. and Tenn., Memphis, November 15, 1904.

places of human habitation, and since the first of last May has accomplished a work of inspection, condemnation and improvement which is a source of pride to the city. Many of us have visited the tenement districts of New York, Chicago and other large cities and are familiar with the squalid pictures of dirt, darkness, dense crowding and despair in which the "submerged tenth" manages to exist, and to such as have seen these pictures, it requires no argument to prove that children reared amid such vile and filthy environments cannot possibly be a credit to any city or state.

The editor of the *Journal of the American Medical Association* says, in the issue of October 29, last, "The evils discovered in Buffalo were those we may expect to find in many cities of its size—dark, unventilated bedrooms, filthy toilets and absence of fire escapes. It is to be hoped that the crusade thus begun will go on, and that the work will be directed not only to the abolition of existing insanitary tenements, but to prohibiting the erection of such buildings. The proper legal means for doing so are already in the hands of many other cities; it is almost certainly true that evils calling out for remedy exist in their midst, and the necessary vigor, courage and public spirit should not be lacking in any of them. Nor should the smaller cities think themselves secure. A city slum is a thing of insidious growth; a tall tenement springs up here; a rear building creeps in there, and suddenly the town realizes that it has a plague spot, a center of poverty and sickness which has grown no one knows how, which will take time and money to eradicate, and which might have been prevented by a little knowledge gained from the sad experience of our larger cities."

Among the principal causes of the physical deterioration of the race, that excellent observer, Prof. Cash, of Aberdeen, Scotland, in an address to the Educational Institution of Scotland, gives a high place to juvenile cigarette smoking; and the following formidable list of symptoms produced by this objectionable habit seems to prove his case; among them are chronic hoarseness, lack of appetite, dyspepsia, pallor from impaired blood formation, rapid and intermittent pulse and pain in the region of the heart, difficulty of breathing and disinclination to partake of those athletic exercises which ought to be the delight of healthy youth; and when to these are added headache, mental weariness, slowness of thought, causing muddled ideas, defective memory, impatience and irritability and grave lowering of the moral tone, the indictment is certainly sustained.

As to the effects of alcohol on the race, Charles Darwin, in a work entitled *Abnormal Man* is quoted as saying, "It is remarkable that all the evils coming from alcoholism can pass from father to son, even to the third generation, and they become worse if the use of alcohol is continued, until they result in sterility." In the same work, Dr. L. Grenier, a French writer and physician, is quoted as follows: "Alcohol has come to be a social question. It is one of the most active agents in the degeneracy of races. The indelible effects produced by heredity are not to be remedied. Alcoholic descendants are often inferior beings, a notable proportion coming under the category of idiots, imbeciles, and debilitated. A large number of cases of neurosis have their principal cause in alcoholic antecedents. The larger part of the sons of alcoholics have convulsions in early infancy."

The next phase of my subject leads naturally to a consideration of practical means for the amelioration of conditions antagonistic to the health, vigor and longevity of the race. Results in this line depend entirely on enlightened public sentiment that will demand the legislation necessary to correct the evils. Let us go a step further and inquire if there is not a field for legislation in favor of the normal birthright of human beings. I believe that there is at any rate a negative field for legislation when it endeavors to improve the race by eliminating from the privileges of matrimony certain classes of individuals whose degenerate and criminal tendencies threaten the purity of the race as a whole. The basal moral right of such legislation is precisely that of quarantine. If, therefore, the alcoholic is shown to be a breeder of idiots, imbeciles and criminals, it follows with very little argument and with much force of practical logic, that such creatures should not be permitted to marry, or if married they should be taken from their families and penned up so effectually as to be harmless.

So of morphomaniacs. A man or woman who is known to go about with a hypodermic syringe, injecting poison at regular intervals, or who habitually uses opium in any form, has no right to be granted a license to perpetuate his species.

So likewise of those suffering from any form of venereal disease and those tainted with insanity. The history of the notorious Jukes family, beginning with Margaret, a criminal and pauper in Ulster county, N. Y., a little more than a hundred years ago, should be a warning to any community against laxity as regards the propagation by birth of its inferior and criminal classes.

Dr. Behrends says, "To that one woman, born between 1755 and 1760, who was a

harlot before marriage, never had any property and died a pauper, 709 descendants were traced, of whom 280 became pauperized adults, receiving nearly $60,000 in relief, 140 became criminals, 60 were habitual thieves, 50 were prostitutes, 300 died prematurely, while the total cost to the state in arrests, trials, imprisonments, relief, property stolen and destroyed, and loss of productive energy, was found to have been over a million and a quarter of dollars. Yet, during all these years no attempt was made to break up this hideous nest of disease, insanity, crime, idiocy and pauperism, its foul stream polluting the country for over a hundred years."

It is the province of legislation acting purely in a negative way to eliminate such families and such classes from the problem of human reproduction.

To further emphasize the importance of this phase of my subject, and to show that scientists and thinking men are alive to the necessity of some action along this line, I quote from the advance sheets of a book now in press on *The Diseases of Society*, by Dr. G. Frank Lydston, of Chicago, one of the pioneers in this country in trying to reduce vice and crime to a pathologic and evolutionary basis:

"1. Notwithstanding the sentiment that is supposed to control the matrimonial relation, the law sees fit to regulate it to a certain extent. For example: A license is required in most states. For this a fee is exacted. Consanguinity is legislated against in all states, the degree of consanguinity to which exception is taken varying in different states. Indubitably insane are prohibited from marrying in some states, where insanity is known to exist. The law has also established an age limit which varies in different states. It will thus be seen that individual disposition in regard to matrimony is placed under certain restrictions. There is no reason why, in my estimation, said restrictions should not be extended to cover all degenerates and the incurably diseased.

"2. I believe that a medical board should be established, whose duty it is to inquire into the personal history and antecedents of all candidates for matrimony. It should be the duty of said board to decide upon the question at issue.

"3. There should be no appeal from the decision of said board, save by individuals who will consent to sterilization, the duty of said board being to protect posterity rather than the assumed rights of the individual. Where degenerate individuals are willing to submit to sterilization there could be no possible objection on the ground of social defense to matrimony. In a general way, I hold that inasmuch as matrimony is the most important of the pillars upon which our social fabric rests, it is society's duty to supervise and regulate it. So far as matrimony is concerned, society should govern itself along the same lines as those followed by life insurance companies. Our vast army of degenerates is an expensive and socially enervating burden for society to carry. Inasmuch as destruction of degenerates, save so far as capital punishment is concerned, is at the present day debarred by public sentiment, the duty of society to protect itself by damming the stream of contaminating degenerates at its very source—the marriage license window—is perfectly clear."

While the time may not be ripe for such legislation as recommended by this distinguished gentleman, yet it is eminently proper for the medical profession to educate the people along these lines—get them to thinking—and it is not too much to expect that in time legislation may be enacted that will throw some restrictions around the marriage altar. Arthur McDonald, the author of *Abnormal Man*, says in his preface, "Since education concerns the moral, mental and physical development of individuals and of society, it bears directly on those pathological elements that tend to social degeneration. As there is no specific for any of society's diseases, the general remedy is to implant and develop in individuals (the earlier the better) such mental, moral and physical habits as will serve to prevent or lessen delinquency, dependency or defectiveness. Such a therapeutic method is distinctly educational."

Ethical culture must go hand in hand with stirpiculture if humanity is to attain to a higher standard of physical perfection. "Society rests upon the average conscience of its component parts; as men are improved individually, society is improved collectively, and the improved society in turn fosters the individual improvement."

Ultimately, character, individual character, what John Ruskin calls "the royalty of a truer thoughtful state, and of a stronger moral state," must be the solution of our social question.

Approaching the last phase of the subject which deals with the physical training of the individual, we will assume that he has the heritage of health, from parents physically and morally worthy of procreation. Now how shall the young child be trained and educated so as best to fit him for the struggle that awaits him? Theoretically, at least, we all pay tribute to the value and importance of physical education. We admire physical strength and beauty, and recognize the inter-relation of mind and

matter. We know moreover that a healthy, active brain is sadly handicaped by an ill-developed, sickly body. Almost daily we witness the breakdown of some friend or acquaintance whose weakness of body could not withstand the mental and bodily strain in the struggle of life.

The great aim of physical culture is perfect health; not the making of abnormally-developed Sandows, but the training of sturdy, vigorous, healthy men and women, physically fitted to pursue their callings with the greatest amount of comfort to themselves and usefulness to their fellows.

Plato taught more than two thousand years ago that he who is educated in mind and in moral nature only and not in body also, is a *cripple*.

How is it with most fathers and mothers today? What attention is given to the training of the child's body? They send him to school to be educated, entrusting him entirely to the teacher to train; and that duty is creditably performed as far as the child's mind is concerned in thousands of schools that dot hillside and valley all over this great country, but there the training ceases; and that which would have helped him most all along the way and been his main support in later years is entirely ignored. The mind is trained at the expense of the body, and the time of all others when the young frame is most pliable and easily developed is allowed to pass unimproved.

Why should these things be true? "Lycurgus had every man and woman trained for war. Is it not about time that an enlightened nation like ours had every man's and woman's body intelligently educated; and so made ready for whatever they may be called on to do, bear or suffer?"

The fault lies not with the teachers, but with the school system which for generations has gone on so blindly. It is high time that the people should awake to the necessity of physical training in the public schools, not in a half-hearted manner, but in a way that will insure results so far-reaching and beneficent that future generations will rise up and call us blessed. I am in favor of compulsory physical training in the public schools, given daily by teachers well drilled and thoroughly competent to stimulate their pupils by the force of example. As a corollary to the first proposition I would require every teacher to be proficient in physical culture. If they have not the requisite knowledge now, let them acquire it at once. This requisite, in place of being a hardship, would be the greatest possible boon to the teachers themselves, for the time devoted each day to the training of the children would give them a physical development and stamina upon which they could realize dividends during their entire lives.

Think of the vast influence of the teachers of this country alone—more than eighteen million children go to school for a part of every year, and all directly under the influence of one or more teachers.

A third requirement is a competent physical director in every school, who is a highly educated practical physician, and in addition, a specialist in physical culture. Let his duty be to examine, weigh and measure each pupil on entrance and at stated intervals, note where he is deficient, and prescribe those exercises that will bring him up to the normal standard. Let him have general oversight of the entire physical training in the school and see that the pupils are scientifically taught.

President Elliott, of Harvard, has secured such a director in the person of Dr. Sargent, who has done more, perhaps than any other American to place physical training on a scientific basis. A long stride in the direction of physical development has already been made in the adoption of manual training in all of the up-to-date public schools—a feature whose value to the individual and the state it would be difficult to overestimate. The instant approval which it has secured from educators and all other progressive citizens is an index of the manner in which a further advance in physical training would be welcomed The people need only to be shown its benefits and they will demand it for their children.

Physical training in the colleges and universities, while it is practiced to a greater or less extent, yet it is not done with the thoroughness and zeal that its benefits merit. Only very recently President Harper, of the University of Chicago, remarked:

"The University is turning out men of strong intelligence, but weak bodies. Some of them are moral and intellectual dyspeptics. It cannot be expected that they will be of much use in the world. If the body is not properly nourished the mind will refuse to act as it should. I therefore hold that it is as necessary to take care of and cultivate the one as the other."

Many others of our eminent educators are awake to the need of an educated body as well as brain for a man who aims to *win* in the life race.

The medical profession should lend the weight of its influence in encouraging athletic sports, gymnasium work and all forms of exercise for the student, in public school, college and university.

The Japanese nation is more in the public eye today than ever before, and the more we learn of these wonderful little people

the greater becomes our admiration for them. Nearly forty years ago they adopted a system of stirpiculture which had for its basis laws restricting the marriage of degenerates, whether mental, moral or physical. Candidates for matrimony are required to show themselves worthy before the license is granted, Who will deny that this progressive nation is reaping the reward of these wise laws in the kind of soldiers with which she is slowly but surely defeating the armies of the Czar of all the Russias? Japan also has a system of compulsory physical training, which undoubtedly accounts largely for her wonderful success in arms.

At least two thousand five hundred years ago the Japanese practiced a system of physical exercise known as Jiu-Jitsu—at that time and until very recently, the art of Jiu-Jitsu was known only to a privileged class of men in Japan, known as the Samurai. They held a position corresponding to the knights of Europe in the Middle Ages, and they alone were permitted to fight. As they could not always be employed in war, and as they could not engage in business, much attention was devoted to the feats of physical training that would make them more efficient in battle.

The essential principle in this Japanese system of physical training is to be found in what may be called the "resistance of muscle." Two pupils work together and resist each other. The claim is made that six weeks of Jiu-Jitsu training will yield better results in muscle, endurance and agility than a year's gymnasium work, or in several years of light calisthenics.

H. Irving Hancock, from whose book on "Physical Training for Children by Japanese Methods" the above facts were gleaned, further says: "In Japan every soldier, sailor and policeman is obliged to take the government course in Jiu-Jitsu. When the allied armies of the civilized powers marched against Pekin in 1900, it was discovered that the soldiers of our regular army were second among all the troops in powers of endurance in the field. But the Japanese were first, and proved their ability day after day to outmarch our troops by fifty per cent. Through the earlier weeks of hostilities with Russia this year, Japanese troops marched twenty-five miles a day through the most bitter weather. Under the same circumstances our soldiers would consider fifteen miles a day a satisfactory average. As Jiu-Jitsu is the only physical training that the Japanese soldier receives, it is evident that it is this system which gives him the greatest endurance to be found in the world."

The suggestions heretofore made in this paper have had reference to the training of the child and the youug man in college. We shall now inquire what hope is there for the mature man to raise his own physical standard and what means should be used to accomplish it? The opportunity is ready to be grasped by every one regardless of age or sex, and the method may be summed up in one word—exercise. Mathews has well said: "The first requisite of success in life is to be a good animal. In any of the learned professions a vigorous constitution is equal to at least fifty per cent. more brain." Cicero says: "It is exercise alone that supports the spirits and keeps the mind in vigor." One of the most prominent physicians in the world gives it as his firm opinion that four-fifths of the ills from which human beings suffer are caused by an insufficient amount of exercise. Use is the condition of development of all the powers of the mind and body. Facility of action comes by habit. Inactivity and idleness induce torpidity and effectually retard growth of every kind. Exercise in all its variety, bodily and mental, is the instituted means for the methodical development of all our powers, under the control of the will.

The advantages to every man of a well-built body kept in thorough repair are beyond compute. Who needs a strong, vigorous, healthy body more than the physician? Enduring severe mental strain for hours—even days at a time, with broken rest at night, irregular, hurried meals, and often exposed to the contagion of virulent diseases, what could be a greater guarantee of immunity from disease and a longer period of usefulness to humanity than a sturdy, muscular, thoroughly sound body?

Wm. Blaikie, whose book on "How to Get Strong and How to Stay So" has been an inspiration to me, and should be read by every one interested in this subject, has said of us:

"No men are more beloved in our land today than its physicians. Able, skillful, brave, tireless; going straight into contagion and danger, from which all others shrink and flee; allowed no rest at church, at home, at social gathering, in bed even, but hurriedly mercilessly to duty and always going. It was a high tribute to their nobility, when Ian McLaren, in his visit here, was told over and over again, in many parts of our land, that when his lion-hearted 'Doctor Willum MacLure' risked his life so often to save his patient, loved in that simple Scottish glen as no one else was loved, and who won all American hearts too—'That's just the way *our* doctor does!" What is sweeter to any true man than the esteem and affection of his fellows? And who gets it like the doctor? And he is ap-

preciated more than he is aware of. And it must have been always so, from 'Luke, the *beloved* physician,' right down to our day.

"But, grand as is their work, is there not a part of it which they omit, yet might easily know, and would often find of rare value?

"The medical man studies anatomy, physiology, hygiene, materia medica, chemistry, surgery, obstetrics and other branches. But where do they fit him to be a *physical director?* To deal with the weak body, not with medicine, but with exercise in the countless cases where that is the real need?

We are bound to admit the justness of the criticism while appreciating the high tribute he pays to the profession. I quote from Dr. S. Weir Mitchell: "When exposure to out-of-door air is associated with a fair share of physical exertion, it is an immense safeguard against the ills of anxiety and too much brain work. I presume that very few of our great generals could have gone through with their terrible task if it had not been that they lived in the open air and exercised freely." Says Dr. Austin Flint; "I would rank exercise and an out-of-door life far above any known remedies for the cure of disease." Professor Richards, of Yale College, well says: "It will be found that athletes in general are beginning to learn that to excellence and success even in any special kind of exercise, a uniform muscular development contributes quite as much as the training of a few sets of muscles." He also cites President Garfield: "There is no way in which you can get so much out of a man as by training; not in pieces, but the whole of him. And the trained men, other things being equal, are to be the masters of the world."

Wm. Blaikie relates the following: "A well known professor in one of the great medical schools in New York city said one day to his class: 'Young gentlemen, your liver is a sponge—squeeze it.' Well you do not squeeze it much in ordinary walking and none at all in sitting still, but when your hands go high over your head, or you sway your body far over to either side or backward or forward, you do squeeze it and greatly aid it in its usual work."

In commenting on the life of Dr. John A. Broadus, one of the most celebrated Baptist ministers in America, a scholar and a noble man, a friend wrote:

"Dr. Broadus never had a strong physique, but by diligent care of himself and by heroic physical training, he was enabled to extend a life of almost incessant toil nigh to the limit of three score and ten.

"Physical exercise was to him a necessity. While at the University of Virginia he took a course of physical training under a director and doubled his most important measurements in one term."

It is not the province of this paper to enter into a discussion of the technique of physical culture. There are many good systems, almost any of which if carefully and perseveringly followed will yield marvelous results.

And when such illustrious men as John A. Broadus, Wm. E. Gladstone, Wm. Cullen Bryant, Henry Ward Beecher and many others whom I might mention have found time to spend a small part of each day in regular systematic bodily exercise, and attribute their successful careers and their long lives to this one habit, surely the subject is worthy the serious consideration of everyone who desires to attain a higher standard of physical manhood.

Ulcers and Their Treatment.

By Stuart McGuire, M. D., Richmond, Va.

Ulceration is molecular death of tissue, or a softening and disintegration of tissue cell by cell. The result of superficial ulceration is the formation of an ulcer or open sore. All ulcers are caused and maintained by pathogenic microbes. They are the result of destructive inflammation, and continue to exist until the primary cause has been removed or rendered harmless. Ulceration and regeneration are both present in an ulcer. If destruction of cells exceeds the production of cells then the ulcer grows larger in size; if the two are about equal the ulcer remains stationary; if destruction ceases and repair continues the ulcer grows smaller and finally heals.

Ulcers are extremely frequent and while apparently insignificant lesions, produce much suffering and disability. They may be due to many different causes. There is no one remedy which will prove efficacious in their treatment. Their cure frequently taxes the diagnostic ability and resources of the surgeon. Ulcers are pre-eminently a disease of the poor. When a rich man injures his limb he at once takes the needed rest and applies appropriate treatment. When a poor man is threatened with an ulcer he cannot afford to quit work, and continues his occupation. His leg gets worse, but he maintains an upright position, until finally the pain compels him to seek relief. Just in proportion to his reluctance to be treated is his demand for a speedy cure. The conscientious practitioner when confronted by such a case will be sorry if his knowledge is inadequate to give the best attainable results. The following are the indications to be met in the treatment of ulcers:

I. *To Remove the Cause.*—A correct diagnosis of the cause of ulceration is essential to successful treatment. In some cases it is easy and in others difficult. The clinical history of the patient should be carefully reviewed, the ulcer itself critically examined, and if necessary secretions or fragments of tissue submitted to the microscopist. If the ulcer be due to mechanical irritation such as the edge of a rough tooth or the corner of an improperly padded splint, the cause should be removed. If the ulcer be due to passive hyperemia from varicose veins, the edema should be removed by elevating the limb and, prevented from recurring by multiple ligation of the veins. If the ulcer be due to syphilis or scurvy the cause should be combatted by appropriate constitutional remedies.

II. *To Give Mechanical and Functional Rest.*—The part, the seat of ulceration should be given rest. If the ulcer be on the cornea, light should be excluded; if the ulcer be in the stomach, food by the mouth should be temporarily withheld and the patient sustained by rectal alimentation. If the ulcer be in the grasp of the sphincter ani, the muscle should be paralyzed by divulsion. If the ulcer be on the leg, locomotion should be prohibited.

III. *To Eliminate Infection.*—As ulceration is always due to infection and is usually attended by suppuration a thorough preliminary disinfection should be practiced before the application of any of the dressings to be afterwards described. This disinfection should consist in the sterilization not only of the infected area but of the entire part on which it is located. This should be accomplished by the usual methods of shaving, scrubbing with hot water and green soap, and the use of antiseptic solution.

IV. *To Apply Appropriate Dressings.*

1. Moist Dressings.—After the preliminary cleaning of the wound and adjacent surfaces the first treatment usually tried is the moist dressing. The method of application consists in saturating a pad of absorbent cotton with the fluid selected, applying it to the raw surface and preventing rapid evaporation by covering it with a layer of oil silk. The cotton should be wet as often as it becomes dry and should be changed as often as it becomes soiled. The solution employed should not be a strong antiseptic, as it would kill cells as well as germs, but it should have an inhibitory action on microbic life. The three that will be found most satisfactory are chloral hydrate solution (chloral hydrate 3i; water oij): Thiersch's solution (salicylic acid 3ss, boric acid 3iij, water oij): and acetate of aluminum solution (alum 3vj, acetate of lead 3ixss, water oij). They may be used either hot or cold and should be employed in conjunction with rest and elevation. Many a swollen and rebellious leg ulcer comes to the surgeon scarred with caustics, gritty with antiseptic powders, or filthy with greasy ointments, but not one that does not yield readily when the patient is put to bed, the limb elevated and the part treated as above described.

2. *Dry Dressings.* -The treatment of granulating surfaces by dusting them with antiseptic powders has been made undeservedly popular by firms that have proprietary preparations to sell. The powders most frequently employed are iodoform, aristol, dermatol, bismuth, boric acid, and oxide of zinc. In some cases they do good, but in most instances they do harm. Chemically they destroy germs and lessen suppuration; mechanically they destroy embryonal cells and retard healing. When first applied to a wound decided improvement is seen, but continued use is followed by irritation due to absorption of moisture and the formation of crystalline concretions that act as foreign bodies, or broad incrustations that prevent the escape of pus or other wound secretions.

3. *Oleaginous Dressings.*—The use of salves and ointments in the treatment of superficial wounds has fallen into unmerited disfavor. Because before the day of antiseptic surgery they were abused is no reason why they should now no longer be used. Some preparations quickly become rancid and should be avoided; others remain sterile and may safely be employed. Vaseline, lanoline and castor oil, plain or medicated, will give better results in some cases than any other application. They exert a feeble antiseptic action, thus lessening suppuration; they exclude the air, thus relieving pain; and they prevent the adhesion of overlying dressings, thus saving the embryonal cells from mechanical injury. In extensive burns there is nothing better in the early stages than a five per cent. mixture of ichthyol and vaseline, and in sluggish granulations, especially of a tuberculous character, good will result from the application of a combination of one per cent. carbolic acid, five per cent. balsam peru, and ninety-four per cent. castor oil.

4. *Nutritive Dressings.*—Considerable benefit will sometimes be derived in the treatment of a granulating wound by the use of a dressing that supplies food directly to the formative cells and their offspring. Proliferation is often arrested by starvation and feeding is the logical remedy. The agent employed should be aseptic, non-irritant, and should contain nutritive material in an easily absorbable form. The

preparation that most nearly meets these requirements is Valentine's Meat Juice. It is sterile, contains no alcohol, is rich in food stuff, and possesses the proper percentage of sodium chloride. It should be diluted with three-fourths water, warmed to the temperature of the body, and applied on cotton in the form of a moist dressing. It does a great deal of good for a short while but then loses its effect. As soon as pale granulations become pink and healthy it has fulfilled its function and should give place to some other dressing.

5. *Alterative Dressings.*—Cells, like individuals, sometimes without assignable reason, develop disturbances of nutrition requiring alterative treatment. In the management of a granulating wound there is often call for local medication. Experience alone can teach the surgeon the agent to employ and the time and method of its application. Nitrate of silver, mercurial ointment, chloride of zinc, and sulphate of copper are all useful and time-honored remedies. Among newer preparations must be mentioned proto-nuclein. I have several times seen indolent or foul granulating areas that had defied a half dozen other lines of treatment improve under its use as if by magic.

6. *Protective Dressings.*—In direct contrast to granulating surfaces that need stimulating or alterative treatment are those that are doing well and only require protection. When the wound is healthy and healing progressing satisfactorily, nothing is more mischievous than meddlesome interference. All that should be done is to prevent infection by cleanliness, and to avoid injury to the newly formed cells by mechanical protection. Cleanliness is secured by changing the dressings as frequently as they become soiled, and bathing the wound with normal salt solution. Protection is best accomplished by interposing some impervious material between the granulations and the meshes of the overlying gauze, into which they would otherwise become entangled. In my experience the best results follow the use of strips of rubber tissue placed latticewise so as to afford drainage. Rubber tissue is cheap and easily gotten. It can be sterilized by soaking in a cold solution of bichloride, from which it must be freed before using by washing in sterile water.

7. *Proliferating Dressing.*—When the destruction of skin is so extensive that the normal reparative power is insufficient to cover the granulating area with epithelial cells, recourse must be made to skin grafting. It has long been known that bits of cuticle properly planted on wounds or healthy granulating surfaces would become adherent and grow, thus protecting underlying structures and acting as independent foci of epidermization for adjacent tissue. The application of this fact with epithelial cells secured from different sources and applied by various methods, has enabled the surgeon to heal wounds quickly and certainly, which would otherwise be slow to close or perhaps become permanent ulcers.

Dead Wood and Flame. *

By W. H. Wallace, M. D., Disputanta, Va.

Way back yonder, in an age that no man knoweth, one of our bare-legged ancestors by accident or design chipped flint against flint and an evanescent spark flashed before his eyes. Following up and playing with this discovery one day a spark fell on dry leaves, a flame sprang forth and he had discovered fire. That spark flashing from those two stones meant regeneration to this sphere. It was the first kiss of science on the virgin lips of nature, and to primal man was the first manifestation of the dynamical laws of the universe.

The probability is that no one could live, but in a small circumscribed part of the earth before the age of fire. Some particular sections that corresponded with what we now know as the tropics, but with the advent of this new force, our prehistoric ancestors became explorers. They launched out, aided by this new mystic force, to seek new environments! Cold had now lost much of its terrors, and they pushed on, with the ages, till the world was populated, and cataclysm succeeding cataclysm many of our progenetors were left stranded on the islands of the sea.

That spark struck in those olden days has grown to a flame that girdles the earth, and is never quenched, and has almost annihilated time. You can go from here to Berlin, spend a month in the clinics and be home again in less time than it took some of our forefathers to cross to this side of the Atlantic.

Fire is everywhere! Even on the trackless sea you can see great blushes of it against the night sky, a pillar of flame by night and of smoke by day, as the commerce of nations wends its way from shore to shore.

Small wonder that one of the strongest of the old religions was fire worship! No wonder at all that when hunting for a symbol for the acme of Divine wrath and punishment the old thelogians pictured hell as a flaming pit.

But it was not of literal physical flame that I wished to speak, but of that other

* Presidential Address before the Southside Virginia Medical Association at Emporia, Va., March 7, 1905.

flame that surrounds our hearts and burns away the dross of time year by year, so that every birthday finds us younger than the last, and with a wider space in our makeup for our fellow men.

That kind of flame that burns up malice, ill will. hypocrasy, and the desire to do our fellow man and do him first. It is that kind of flame that eats up all uncharitableness and the glare of who's light blinds us to our brothers sins and shortcomings and causes us to look over his jibes and his slanders and only to remember that he is but a brother sinner, not so much worse than we are ourselves, and that to err is human.

The flame of which I speak is that that has blazed the trail for great achievement through the ages, from Hippocrates to the leaders of medical thought of today, and please God it is the same flame that has caused each of us (at some sacrifice) to be here today, to add our mite to the common good; to add our little torch to the great national light that some day will blaze so brightly, that the present order of things will be reversed, and one day we will see the men of London and Berlin coming to our shores for instruction.

We are all familiar with dead wood, and the different kinds of it. There is the dead wood with a soggy heart and a dry outside. It burns well at first but is soon burned out and is a dead weight for the rest of the wood to carry! Do you recognize the picture! There is too the soggy, lifeless kind that no fire under heaven can kindle; it is absolutely lifeless, and simply wastes away by attrition, the most hopeless kind of all. Then there is the dead wood that still has some vitality left; it is a little hard to start, but when started it goes with a vim. In all medical societies, and probably in all other kinds of societies, there is always the plaint, "We have so much dead wood to carry. If it were not for that we could do better work." Gentlemen, a close communion with myself while riding over many miles of muddy, lonesome roads, has convinced me that I am dead wood of some kind or other, and I am afraid that I cannot say much more for my fellow practitioners. It behooves us to ask ourselves then "what kind of dead wood are we." Let each one ask himself the question, "Am I an incubus to my fellows?" Am I so fearfully "dead" behind the times, mentally and morally dwarfed, soggy and soaked that the flame of a blast furnace could not light me; or am I dry and light on the outside with a soggy innerside, flash up like a meteor, and as soon burn out, or am I rather made of the stuff of which the leaders of our kind are made, with a will to do and with a resolution to hold fast with a bulldog grip. It is a sad commentary on our profession that there are so many of the soggy kind in its ranks, and I sometimes think that a great number of us are so because the stronger pushers have crowded us to the wall; have passed over our heads, and when on top instead of stretching down a lifting hand have rather kicked the weakling lower down and so, saddened and discouraged we have laid to one side and allowed progress to go by on the other.

Some one has said that the glory of the Caucasian is not in the strength of his good right arm, but in the power of his mental equipment, that has put him over the tribes of the earth, and has tempered with mercy his dealings with inferior peoples.

I hope we will all remember that and practice what it claims. The arch that spans the turbulent stream of injustice is locked by a composite keystone, fused from three fundimental principles; that wonderful trinity of democracy, justice, equality, and right; take away from that keystone one of those principles and the key will crumble and the span will fall. It is a law as immutable, as that of gravitation that injustice and wrong doing carry their own punishment! It is the social order, and has prevailed, even from the day that Judas betrayed his sacred Master for Roman coin.

It was the old order that the bright boys in the medical schools staid in the cities and dullards took to the country where competition and criticism were less keen, and you often heard the expression "only a country doctor" spoken as a reproach. Even today you will still hear it, but the sting of the lash is less severe than it once was for it is no longer a reproach.

I believe we have as good clinicians in this society as are to be found in Virginia, and I would as soon trust myself to the professional care of some of my confrers as to any physician on this globe. My recollection is that McDowell was a country physician. Simms done his original plastic work on the vagina in a small country town, and two of the best surgeons in this country today are doing their work in a small city.

The great danger of our country practitioners is, in falling into a rut. The flame of ambition that flared up so brightly when leaving college, dies down as the years go by, and there is danger of getting soggy, and it is to prevent just this thing, that this society and numberless other societies are organized so that the doctor of the old school can learn the latest teaching from the doctor of the new, and the doctor of the new school can learn from the practical wisdom of the doctor of the old.

The back woods doctor comes out to

listen, and finds that he knows just about as much of a certain subject as Dr. So and So, and the man who came to listen remains to talk. He finds that his neighbor instead of trying to steal his patients, is trying to perfect his technique, and so a spirit of bonhommie and good-will toward his fellows is engendered and every one goes home feeling better and doing better, and they live longer and die happier. No man can do very good work unless he be sure of himself, and nothing makes a man so sure of himself as to have to defend his theories in open debate. It is in the multiplication of these country societies that the safety of the country physicians lie. The dead wood must be dried out and brightened by the flame of his neighbors enthusiasm till he too will catch and pass on the divine spark to his next neighbor. I know that there is to be found some dead wood that the flames of heaven above or of hell beneath could not impart a glow to, but they are a very small minority and every one must just keep pushing till all the men eligible in the community are members, and working members, too; and when this is once accomplished we will have one of the best working societies in the country, and nothing less than this will satisfy us.

I commend to you this flame of ambition; ambition for achievement for its own sake and not for self. That flame that shone in the eyes of Hannibal as he landed his legions in Europe and marched them through the snowy Alps to Italy and maintained himself in an enemies country for twenty years without a base of supplies; to my mind the greatest feat in military history. It was that flame that shone across the waters to Cæsar and led him to the conquest of an almost mythical Britain. It was this pillar of fire that shone across the waters of the ocean in the expectant eyes of Columbus, and caused him to brave the terrors of an unknown sea, and the fruit of whose dreaming is today this great western world. It was the same bright flame that shone in the eyes of Paul as he set sail from Antioch, and the same that glowed over the western hills of Kentucky and shone in the lonely eyes of McDowell, the country doctor, who magnificently dared and whose name many a woman has reason to call blessed. It is the same flame that in various degrees has played across all our eyes. The Holy Grail, if you will; the same yesterday, today, and tomorrow, in all lands and to all men.

"Paraldehyd" possesses many of the good without the evil qualities of chloral. Used in Insomnia resulting from various causes. The objectionable taste of the chemical is, to a great extent, disguised in Robinson's Eilxir Paraldehyd (see p. xii), which is an excellent preparation.

Management of Convalescence for Typhoid.*

By Joel Crawford, M. D., Yale, Va.

Mr. President and Gentlemen of the Southside Virginia Medical Association:

The only apology I have to make for offering this brief paper entitled "The Management of the Convanescent Stage of Typhoid Fever," is solely because if, not all nearly all of the cases I have lost, death took place during that period or stage of the disease.

Taking into consideration the errors committed by the untutored nurses in charge of the patients out here in the country, is it not surprisingly wonderful that the mortality rate is not greater than it is?

After the establishment of convalescence continued rest is of great importance, as the danger of perforation is by no means past, which should be maintained for at least a week after all fever has ceased. Visits of friends are very apt to be followed by a rise of temperature. Of course intestinal antiseptics and tonics are useful at this period and stimulants, too, may often be given advantageously. Since relapses are very easily induced by indiscretion in diet, it becomes an important question after subsidence of fever: how soon shall we allow a return to solid food.

The patient's appetite is always a dangerous guide to follow, since like a long starved man, he thinks of nothing but food and demands something new at every meal. Ill-advised but sympathetic friends attempt to smuggle in all manner of forbidden fruits and the patient himself when he arrives at the hungry state is tempted to steal solid food (Pepper). In the very mild cases it is both safe and wise to allow a (more?) strengthening diet at an earlier date than in the severe cases, and it will greatly prolong convalescence to forbid it. Though I quite fully agree with Pepper that the patient ought to be kept wholly on liquid diet for at least the first 8 to 10 days of convalescence before a gradual return to solid diet is commenced. "I am aware that many excellent observers sanction the use of small quantities of semi-solid or solid food, but my experience is wholly opposed to it. I have repeatedly observed unpleasant or even alarming symptoms *so* closely connected with the ingestion of even a minute amount of such food that it was impossible not to regard them as directly caused by it." (Pepper).

Of course water should be given freely during convalescence as much so as during

*Read at a recent meeting of the Southside Virginia Medical Association, at Emporia, Va.

the progress of the fever, for quite obvious reasons. The greatest care is necessary as to diet, which, as previously mentioned, should be for the first 8 or 10 days entirely liquid, nutritious and non-irritant, and administered at stated intervals, but not too frequently. (Roberts).

Good milk is by far the most important article of diet, which may be given raw or boiled, hot or cold, iced, peptonized, mixed with lime water or ærated water.

Since in some instances milk tends to produce constipation, and may even form such hard masses of curd in the stomach and intestines that it becomes practically one of the most solid of foods, and if these difficulties can not be overcome by peptonizing it or by mixing it with lime water, it may be necessary to substitute some other form of nourishment, Again, the repugnance of the patient to milk may necessitate a change of diet. In such cases buttermilk, whey, or koumis may be of value. Broths or soups of mutton, beef, chicken, veal, oysters or clams, are often useful. They may contain a small quantity of barley or rice. White of egg mixed with water or with stimulants is valuable at times, as is beef juice or some of the various preparations of beef on the market. (Pepper).

Solution of gum arabic, barley water, rice water, toast and water, weak solutions of tapioca, sago, or arrow-root, very weak gruels of oatmeal or Indian meal, vegetable jellies mixed with water, and other similar preparations may be successively or interchangeably emyloyed. (Woods practice) Having had no experience myself with rectal alimentation in typhoid fever, I will simply mention that Iveirola, of University of Pisa, has fed typhoid patients exclusively by nutrient enemata four (4) times a day with success, his idea being to avoid putting anything into the small intestine capable of fermenting or producing toxins, but this practice is not in accord with modern views of the disease. (Thompson W. Gilman).

Neither have I had any experience with either intra-vascular or hypodermic feeding in the affection under consideration, though more or less success has been claimed for each method. The latter, however, has not proved sufficiently satisfactory to warrant its continuance. (Thompson).

The following is a list of soods suitable for the different days of convalescence, commencing on the 8th day after disappearance of all fever, milk should still be given until gradually wholly replaced by solid food.

8th Day.—Delicately prepared milk custard, poached egg, a thoroughly baked mealy potato served with butter or mashed with cream.

9th Day.—May select articles from previous day to which may be added a thoroughly baked apple minus the rind, seed and cora, rice, and milk pudding.

10th Day.—A delicately prepared egg bread familiarly known in common country parlance as batterbread, a little broiled fresh fish for breakfast, soft parts of oysters, bread and butter for dinner, together with selected articles from the menu of the two (2) previous days.

11th Day.—A piece of tender loin steak or a little breast broiled chicken, mush and milk, other foods as before, ice cream.

12th Day.—A slice of tender rare roast beef, beef steak at dinner, a squab or breast of partridge or roast chicken, together with other foods as before.

For the next four or five days the patient may select articles from the menu of the previous days, so that three (3) good meals a day are taken, besides three or four (3 or 4) glasses of milk between meals. (Thompson).

If at any time the temperature begins to rise above 100 deg. 5 F., it is safe to return at once to a fluid diet.

Pepper's Practice.
Wood's Practice.
Robert's Practice.
Thompson (W. Gilman) on Dietetics.

Appendicitis in a Child Discovered by Rectal Examination.

Dan McKenzie, in the Brit. Jour. of Children's Diseases, mentions the fact that rectal examination should be undertaken as a matter of routine in all doubtful cases of illness in children, more especially in those in whom the symptoms point to the abdomen as the seat of disturbance. He reports a case in point. A boy aged 4 years was suffering from pyrexia and malaise when first seen. As he was subject to acute gastric attacks, nothing unusual was anticipated. On the day after the first examination, he complained of stomach-ache and pain on micturition. The abdomen seemed to be hard and tender. Per rectum, the bladder was felt to be full and fluctuating. As some cystic trouble was suspected, the patient was anesthetized and a catheter passed into the bladder, but nothing was found to account for the symptoms. Rectal examination cleared up the cause of the illness. Bimanual palpation of the pelvis and abdomen revealed an oval, rounded tumor about the size of a pigeon's egg, lying toward the right side of the pelvis, in the right iliac region. Appendicitis was diagnosed. At the operation, which was performed the same evening, it was found that the appen-

dix was perforated in several places, and the organ was lying in a pool of pus, so that if surgical intervention had been delayed even for a day or two, the child would doubtless have died. Convalescence was complicated by the passage of a fairly large uric-acid calculus. After this, recovery was uneventful. The pelvis in a child is so much shallower than the pelvis in the adult that it is possible with a finger in the rectum to investigate the condition of the abdomen far more completely than can be done in later life. Anesthesia, in his experience, is necessary for a satisfactory examination of this kind.

Scopolamine Morphine Narcosis.

Ziffer (Monatsschrift f. Geb. u. Gyn.) gives a report of his experiences with scopolamine and morphine, with or without the use of chloroform in addition. The author has used it in 64 gynæcological operations and in 31 cases of childbirth.

He states: (2) If complete narcosis is necessary, 2 centigrammes morphine and 6 decigrammes of scopolamine are injected two hours and a half before operation; then later, 1 centigramme of morphine and 5 decigrammes of scopolamine one-half hour before operation. After this, the preparation of the patient can be made without pain, and chloroform only be begun just before beginning to cut. An exceedingly small amount of chloroform is thereby sufficient for even a long operation. The anæsthesia may be used without chloroform if a special contraindication (heart disease, cachexia, etc.) exists.

(2) As half narcosis the scopolamine morphine injections may be used in small operations not involving much pain to the patient, and in labor cases associated with painful uterine contractions or where there is imminent the probability of operative intervention.

(3) As an analgetic, in cases where morphine is indicated and where it is desired to have the analgesia last a long time.

The only contraindication that Ziffer mentions is a relative one. It is in cases where the patient's pulse runs up to 150 after the second or third injection. If used with the care suggested in his article the author asserts that no bad results will follow.

Treatment of Hepatic Echinococcus Cysts With Injections of Corrosive Sublimate.

Pirrone (Riforma medica) reports a new treatment for the cure of echinococcus cysts, proposed by Baccelli. A small quantity of the cyst fluid, about 10 cc., (2 drachms) is drawn off, and through the needle left in situ, several cc. of a 1 per cent solution of corrosive sublimate are injected into the cyst cavity. This procedure has to be repeated, at increasing intervals, a number of times until the cyst is completely obliterated and the worms dead. The author describes fully 3 cases which were treated by Baccelli, within a short time, and alludes briefly to a number of others. The operation is without any danger, and exploratory incisions have shown the effectiveness of the method. For good results, it is necessary to have to deal with a clear and sterile fluid, with a single chamber, and with walls sufficiently young and thin to enable them to collapse after the death of the parasite; neither should the cavity be too large. Before making the puncture a bandage shonld be made to surround the abdomen beneath the liver, an icebag kept over the liver for 24 hours after the operation, and food withheld, the patient kept very quiet during this time. The death of the parasites is indicated by leucocytosis in the fluid obtained by puncture and the presence of numerous hooks, which become detached from the wall. The fluid first aspirated, contains few, if any, of these hooklets. The liver is usually hypertrophied to compensate for the loss of the portion invaded by the cyst, and although not degenerated elsewhere, the organ generally remains enlarged after recovery.

The Misuse of Tendon Transplantation.

Oppenheim (Berl. klin. Woch.) in a brief paper calls attention to the dangers of a too reckless application of the method now much in vogue of transplanting tendons for the relief of paralysis and contractures. To illustrate the danger, a case is described which was regarded as suitable for this procedure, when, as a matter of fact, the symptoms were due to a tumor of the eleventh lumbar vertebræ. Other cases of progressive muscular atrophy in the so-called neuritic form of this disease have been operated upon without the true condition being thought of until long after the operation had been done. He says that the surgeon or orthopedist who plans to do tendon transplantation or a muscle operation of a similar nature must feel it his duty to determine beforehand that the condition is not due to a progressive disease, and that it is due to a process that has run its course and has become stationary. This definitely proves this one fact, after all other causes are taken into consideration, namely: That there exists a close relation between syphilis and the diseases of the nervous system studied. This conclusion can be weakened only by showing a like proportion of these diseases in a material that is not syphilitic.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - -

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THE STATE SOCIETY MEETING.

Greensboro is the medical mecca of the State this year, and all good doctors and those who desire to be, should feed the camel and get ready for the annual hegira.

The time is the balmy month of May, when the hard-working man naturally feels like taking a rest and those who don't work much want a change. The great meeting we had at Raleigh last year will be laid in the shade by the Greensboro gathering, and that is saying a great deal.

The tireless secretary has found a way to make things interesting for all those who come. He has worked way into the night to get up a good program, and the members should show their appreciation by coming in a crowd. The new organization plan has worked better than the most sanguine of us hoped for, bringing into touch the entire profession of the State, and it will show in more ways than one, what the profession can do when they all get together. Greensboro is about the best located place in the State for a great meeting. The railroads radiate in every direction and convenient schedules make it an easy matter to come.

There will be reduced rates on all the railroads by the certificate plan. Don't forget to ask your agent for a certificate when you get a ticket.

THE PROGRAM.

The list of papers will cover the entire field of medicine and surgery and cannot fail to interest all who come. Some of the papers will be read by prominent men in the profession outside the State and will be authoritative on that particular subject. The majority of them will be by the best men in the State, and will give practical views on important points in the diagnosis and treatment of diseases. Taken, all in all, the program will be equivalent to a first-class post-graduate course.

THE HOTELS.

A comfortable place to stay is a very important item in a meeting like this, and all who come can be assured of good boarding and lodging places. The rates will be very reasonable, and will of course depend upon the kind of accommodation desired.

The Benbow Hotel, which has been so lately fitted up, will be able to take all those who desire first-class care and attention. Every effort will be made by all the hotels to see that every one has a soft bed and a square meal. Greensboro's ability to handle a large crowd is known far and wide, and she will very likely show us a thing or two in May. The Society will meet on Tuesday, May 23d, and will continue in session three days. Dr. David T. Tayloe, of Washington, will preside, and those who know him, and most everybody does, know how well he will do it.

THE MEDICAL EXAMINERS.

The Board of Medical Examiners will meet in the Benbow Hotel on Wednesday, May 17th, at 3 p. m., for the registration of applicants for license, and will continue in session every day until the Society meets.

The first examination will be put up at 9 a. m., on the 18th, and two will be given each day until completed. All those holding temporary license will turn them in at this meeting as they are null and void after this date. Before taking the examination applicants must show diploma from a reputable medical college, a certificate of good moral character signed by at least two persons known to the Board and pay a fee of $10.00.

The result of the examination will be announced to the Society on Tuesday, the 23d, and all the successful applicants will have time to join the State Society. It is hoped that all those who pass will avail themselves of this opportunity.

Now, don't forget the date, or the place, or the profit, or the pleasure of this meeting.

Remember, the Board meets on May 17th. The Society meets on May 23d, and the doctors will meet on every corner.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

This large volume of Transactions comes to us this year showing every evidence that it has been carefully and intelligently edited. It is beautifully and substantially bound and contains over six hundred pages of reading matter, besides many illustrations. It is a magnificent record of the advances in medicine and surgery in this State during the past year. It shows that the character of the work done at the Raleigh meeting was larger and better than ever accomplished at a former meeting. The papers were numerous and covered quite a varied field. They represented a great amount of original investigation and research and scientific preparation. The volume contains the Constitution and By-laws of the Society, the principles of ethics, and a directory of the members of the society, the college and date of their graduation, when they received their license and when they joined the society.

The names of the members are arranged

alphabetically under the heads of the different county medical societies, with that of the name of the president and secretary of each county society. The Society during the last two years has grown from a membership of 350 to about 1100. This is remarkable. While the plan of reorganization, as adopted at the Hot Springs meeting may contain many defects, it must be admitted that it has a great many advantages. The plan, after it is studied without prejudice, ought to appeal to any physician.

Some prominent doctors in the State, who have been members of the Society for a long time have been left out of the list of members, on account of their indifference to the county medical society. We may be wrong to entertain this belief, but we do believe that every member who really loves the State Society ought not to hesitate to join their county medical society in order to conform to its rules and regulations. No doubt, at the approaching meeting, we will have men who are prominent and who are good, who will pose as objects of sympathy because their names have been dropped. They ought not to receive sympathy, they have had a plenty of opportunity to join their county society, or organize one if they wanted to encourage the workings of the State Society. The volume of Transactions was delivered a little late, but there were a great many unavoidable causes for this. In as much as all the papers and minutes of the meeting had been published in the different medical journals of the State and had been read by possibly all the doctors of the State, there was not a very great necessity to hurry the publication of transactions in volume form.

The policy that existed fifteen years ago in reference to the publication of papers in medical journals was really a foolish one. It was possibly an offense to the society for a member to let an outside journal publish his paper until it had previously appeared in the Transactions. The policy now seems to encourage, and properly so, the publication of the minutes and the papers in especially the journal of the State before they appear in volume form.

Dr. Way has certainly very intelligently and carefully edited this volume and his work deserves praise.

PTOMAINE POISONING FOLLOWING PREGNANCY.

In discussing this subject we will include only those cases which follow a normal and uncomplicated pregnancy and labor. It may be due to over-eating or including certain articles in the diet which are not easily digested. During gestation the mother's organs are all hypertrophied and are doing double work: that is, she is living for two. It takes about nine months for the fœtus to develop, and therefore the same time for all the changes in the maternal system necessary for the growth and development of the fœtus. As soon as the child is born all the organs which have been hypertrophied undergo a certain amount of degeneration, thus causing an increase of waste products to be gotten rid of by the excretory organs. It is at this time that over-eating or an indiscretion in the diet, overtaxes the excretory organs by remaining in the stomach and intestines in an undigested condition and undergoing fermentation and forming a culture medium for whatever bacteria that may be present, and thus the toxines and ptomaines are formed and absorbed, producing the symptoms of poisoning. The first symptoms are generally chills and frequent and fœtid discharges from the bowel, in this way nature may in time rid the bowel of this irritating matter. Or as infant's, a dose of castor oil may assist in clearing out the intestinal tract.

Any form of opium given at this stage necessarily interferes with the elimination of the poison by checking perstatsis and checking the excretory functions of the other organs. If the toxines or ptomaines have been absorbed in too large quantities before the alimentary tract is cleared, then the action of these products manifest themselves especially by their action on the heart and respiratory center.

With these points in mind in regard to the poisons generated in the intestinal canal, if now you add to this the waste products which are formed by the disintegration of the cells in the various organs which are undergoing the change to bring them back to practically the same condition they were previous to gestation, one realizes why a ptomaine poisoning following pregnancy differs so materially from tnat in other simple cases.

In regard to the treatment of these cases as the blood is over-loaded with these poisons and waste products and the excretion of the same are not taking place fast enough it is best to dilute the blood with the poisons by giving subcutaneous injections of normal saline solution, and in this way increase the excretory functions. At the same time realizing that the process which has gone on in the alimentary tract has acted as a violent gastro-intestinal irritant, and therefore the mucus membrane from one end of the tract to the other is more or less involved, as often seen by the condition of the mouth. This brings up the subject of diet in these cases. If in the case of an infant or child, you have diarrhoea, etc., you clean

out the alimentary tract and put it on water for a few days. In these cases which are referred to in this article, why is it not a wise thing to follow out the dietetic regimen, as in the case of the child?

It is said that a person can live for three weeks on water alone. Any albuminous material, whether it be sterilized milk or albumins from meat placed in the stomach and intestine of a patient in this condition, will only serve as a culture medicine for the development of whatever bacteria may be present or decomposed, and thus form more ptomaines and toxines to be absorbed. Any signs of cardiac or respiratory failure, would of course, be treated by the usual remedies used in such emergencies.

PANAMA CANAL.

Colon, the eastern terminus of the canal, has a population of about 6,000, 75% of which are negroes, a few Chinese and about 300 whites, the remainder being natives. The city is situated on a low island of coral formation and of which it occupies only a small portion. The streets are, as a rule, higher than the lots on which the houses and stores are built, and stagnant water remains under the houses the year round. Proper drainage and sewage of the city is, therefore, indeed difficult, the only means at present available, seems to be to fill in the island with sand from the harbor, dredge, and then cut canals at right angles across the land, the sewage emptying into them and let the tide do the rest.

The Panama Railroad Company's buildings are sewaged by the sea, the rest of the dwellings have no sanitary arrangements, all excrementitous material being deposited either under or along side of the houses to be removed only by the carrion dogs or by the rains which usually fall from May to January. The water supply is most unwholesome and inadequate. On the ground sloping toward the resevior is a negro settlement, and here is where the darkies do their washing. The better class of people have cisterns and the railroad people use distilled water. Yellow fever occurs in Colon, also malaria in its most pernicious form and is the commonest and most fatal disease.

The Isthmus Canal Commission have repaired the old French Hospital and have taken over the railroad hospital which will be most inadequate when the actual construction of the canal begins. There remains of the old canal property about 2,500 houses strung out in small villages across the Isthmus, the buildings being, as a rule, in an advanced state of decay.

The City of Panama is a typical Spanish place with scarcely a passage way for sidewalks. Population is about 18,000. Both the stegomya and anopheles species of mosquitoes are most plentiful, especially the first mentioned.

Yellow fever is increasing, almost approaching an epidemic, and will increase with the increase of foreign population, the negro being the only class to escape.

Ancon Hospital, adjoining the city, is magnificently located and cost a million in gold. The government is rapidly placing the building in repair and screening it throughout. It now has a capacity for 700 patients. Even this it is feared will not be in any way sufficient to take care of the sick when work begins on the canal. It is believed by the sanitary authorities that no case of yellow fever has been admitted since the establishment of the present quarantine service and, therefore, they believe that it is true the disease may be stamped out. In the course of time, in the region of the canal, will be drained, for it is wonderfully fertile, the banks of the canal will in time be lined with prosperous farms as almost anything will grow there. The cattle along the route are exceptionally fine. The cities of Panama and Colon will be given first attentiou in the matter of sanitation whenever our people do get to work, but in the meantime, the price this country will pay in the sacrifice of lives and of those invalided home on account of malaria, will be something enormous.

SOME CHRONIC CONDITIONS FOLLOWING DIRECT INJURIES.

Many of these conditious are readily explained by an examination of the physiological functions and anatomical structures of the body, such as injury to the nervous system sufficient to cause complete atrophy and destruction of the various parts involved.

The patients that come to us with a history of a slight bruise or contusion, laying great stress on this as an actual cause of the condition we too often ignore; but every now and then certain cases appear which we are unable in any way to attribute any other cause than the one quoted.

It is not uncommon to see osteo-sarcoma develop from a slight bruise or contusion. In cases of tubercular hip-joint disease the mother often attributes it to a fall. This, of course, is possible, for occasionally cases occur in which the patient was entirely well up to the time of the injury and perhaps, months after it has occurred, the patient presents all the typical symptoms of a coxalgia. This is due, no doubt, to the bacilli lurking in the tissues, but in a latent condition the injury so lowering the vitality of the parts to make it possible for the growth and development of the bacilli,

Malignant disease is in general a disease of old age at the time in life when all the tissues are in a state of lowered vitality. Sarcoma may be considered a disease of young people, and as above stated often follows direct injury.

If an injury in a young person is often the cause of the development of a sarcomatous growth; why is it not possible that slighter injuries in an old person, whose tissues are already lowered in vitality, may not be a possible cause for the development of malignant conditions in these cases.

Under the term injury may be included chronic irritation. This of course may not be the direct cause of malignant conditions, any more than a chilling of a part is the direct cause of an infection. Therefore, injury and irritation may be considered as attributable causes to the development of bacteria and malignant conditions.

DR. WM. OSLER'S ADDRESS.

The statement as to the comparative uselessness of men above forty years of age made by Dr. William Osler, late of Johns Hopkins University, which has caused so many absurd statements both by some of the medical profession and newspaper reporters is a fair example of how careful a man of prominence must be in order to avoid this undesirable notoriety.

There have been many just such cases and there are always some newspaper reporters and jealous medical men who stand ever ready to put a misconstruction on statements made by a man of prominence simply to produce a sensation at his expense.

By quoting Dr. Osler's statement one can readily see how this whole matter was brought about. Dr. Osler said that he has in this regard two fixed ideas. "The first is the comparative uselessness of men above forty years of age." "Take the sum of human achievement, in action, in science, in art, in literature, subtract the work of the men above forty and while we should miss great treasures, even priceless treasures, we would practically be where we are to-day." The effective moving vitalizing work of the world is done between the ages of twenty-five and forty years. In the science and art of medicine there has not been an advance of the first rank which has not been initiated by young or comparatively younger men.

TRI-STATE MEDICAL ASSOCIATION.

The seventh annual meeting of this association was held in Greensboro, February 28–March 1. It was large and successful. The members were delighted with the hospitable people of Greensboro.

Officers were elected as follows: President, Dr. Hubert A. Royster, of Raleigh, vice presidents, Dr. Hugh M. Taylor, of Richmond, for Virginia; Dr. C. J. W. Jervey, of Greenville, for South Carolina; Dr. Albert Anderson, of Wilson, for North Carolina; secretary, Dr. Rolfe E. Hughes, of Laurens, S. C.; members of the executive council to fill vacancies, Dr. W. M. McKenzie, of Salisbury; Dr. G. D. Wilson, of Spartanburg, S. C.; Dr. G. D Upsher, of Richmond, Va. The new executive council is composed of Dr. W. W. McKenzie, of Salisbury; Dr. Albert Anderson, of Wilson, and Dr. W. H. H. Cobb, of Goldsboro, for North Carolina; Dr. G. D. Upsher, of Richmond, Dr. W. E. Anderson, of Farmville, and Dr. Stuart McGuire, of Richmond, for Virginia; Dr. G. D. Wilson, of Spartanburg; Dr. Edward F. Parker, of Charleston, and Dr. W. R. Lowman, of Orangeburg, for South Carolina. It was decided to hold the next annual meeting at White Stone Lithia Springs, S. C.

AMERICAN MEDICAL ASSOCIATION JOURNAL, ETC.

The California State Medical Journal—being an official organ of a State Society that has adopted the reorganization—speaks with remarkable temerity as to the business management of the Journal of the American Medical Association. Among other things, it points out that the Association members pay into its treasury something like $40,000 a year more than it needs—enough to enable the trustees to provide for not only the best journal in the country, but also one which does not, in every issue, make a laughing stock of the "principles of ethics." Nearly every issue tends to debauch the mind of some members; it recommends to them to make use of or prescribe secret remedies. It uses about $15,000 of the dues paid in by members to help in its work of "promoting the use of secret remedies." The trustees of the A. M. A. are responsible. "Their contention, that it is not possible to determine which ads. are ethical and which are not, is simply absurd, puerile and idiotic. Let them answer these simple questions: Is it a medicine? Is the composition of this stuff known to the doctor who is asked to prescribe or use it? Are the advertising statements made within the truth? Is it advertised to the laity?"

The above is taken from the Virginia Medical Semi-Monthly and expresses in part our opinion. The whole cause of the bad ethics so often seen scattered through the reading matter and advertising pages of the Journal is due to Dr. Simmons and not the trustees of the Association. He is a cunning politician and a typical commercial

gentleman. As long as he has control of the Association Journal it will succeed financially, but will never take a decent stand, ethically.

DR. KENNEDY'S PRIVATE HOSPITAL.

Dr. T. C. Kennedy's private hospital, in Shelbyville, Indianna, which has enjoyed a successful career for the past five years in general surgery will now be devoted to the surgical treatment of stomach, gall-bladder bile ducts. The hospital is equipped with all the modern conveniences, and in charge of a thoroughly trained nurse.

Dr. Kennedy is a member of the Shelby County Medical Association, Indiana State Medical Association, and the American Medical Association, and has always conducted this institution in a purely ethical manner. This is the only institution which is devoted exclusively to this special branch of surgery in this part of of the country.

THE NEW BELLEVUE HOSPITAL, NEW YORK.

According to reliable reports it has been decided by the Board of Aldermen of New York, to begin work on the new hospital within the next few weeks. It will take five years to complete the building. When finished it will be the largest and best equipped hospital in the world, costing over ten million dollars.

Dr. Chas. A. L. Reed's report to the government showing how the commission makes efficient sanitation impossible brings out the following facts:

1st. That the sanitary staff is efficient.

2nd. That the importance of sanitation is equally well recognized by both governments.

3rd. That at a meeting of the commission, held in Ancon, August 28, 1904, Mr. Grunsky, as the committee on a proposed health department, presented a report which was formulated over the respectful protest of the medical men who were invited to the conference.

By this report the commission, more especially Mr. Grunsky, provided for the creation of a board of health with power to formulate regulations which would become effective only after approval by the commission; or, in case of emergency, only on approval of the Governor of the Canal Zone.

Thus the chief sanitary officer was subordinated to the Governor of the Zone; to the chief distributing officer; to the chief of the bureau of material and supplies to Mr. Grunsky; to the commission; to the secretary of war; to the president; subordinated in fact to the seventh degree from the original source of authority. The chief sanitary officer, Colonel Gorgas, is the foremost authority in the world in solving the peculiar problems that are connected with sanitation of the Isthmus is made subordinate of a whole series of other subordinates who are confessedly ignorant of the very questions with which he is familiar. This will, of course, necessitate a great loss of time and money before anything is obtained, even if it be of great importance.

4th. That commission has expressly prohibited the sanitary department to decide on the suitability of its own supplies.

5th. That necessary improvements are withheld.

6th, That they will employ cheap physicians for the Isthmus. Internes in the hospital will receive $50 a month, the same salary that is paid the nurses. After the expiration of a year they are at liberty to return north. Once on the Isthmus, these young men, finding themselves on the salaried basis of nurses with incidental expenses that cannot be evaded, and that will eat up the last penny of their beggarly stipend, desiring to leave their humiliating positions will find the door closed against egress. The commission, more especially Mr. Grunsky, holds up the prospect of promotion. This, under Mr. Grunsky's rules, cannot be granted under a year and then, if granted, the salary is placed at $125 a month, or $300 per year less than the minimum salary paid to contract surgeons in the army.

7th. That the United States will be in cheap competition with the medical profession of Panama, as shown by the following law of the commission: The money realized in the hospitals from charges for board medical attendance, surgical operations and the like, and from visits at residences, as set forth, shall be considered public funds and turned over to the government of the Canal Zone.

8th. That Colonel Gorgas was permitted by those in authority over him to assume the sanitary control of the two cities, only after four or five months had elapsed, only after the progressive development of yellow fever had reached the sensational point, only after the personnel in the Canal Zone had become thoroughly alarmed over the situation, and Panama by this time had become generally infected.

9th. That the campaign against malaria was thwarted by the commission.

Dr. Reed, as Chairman of the Legislative Committee of the American Medical Association, concludes by saying: "In view of the facts which I have presented, and in view of many more facts of similar purport which might be presented in view of the President's manifest and expressed wishes,

and their complete disregard by the commission, but more particularly in view of the vital interests at stake, I have the honor not only to submit the suggestion, but really to urge that the time has arrived when the President ought to redeem his word and ask for the resignation of the commission.

Consul Thompson, stationed at Progreso, suggests that the Department of State investigate the value of the castor oil plant to keep mosquitoes away from dwellings,

"The belief is current among the natives of Yucatan that a few of the plants will protect the inmates of a house," he writes in Public Health Reports.

"This belief has been to a certain extent confirmed by an experiment made by me personally. My dwelling at one time seemed to be peculiarly acceptable to mosquitoes. I planted a row of castor oil plants around the courtyard and in a short time the mosquito was rare as he was formerly a frequent visitor. My plants were destroyed by a cyclone, and now the mosquitoes are as abundant as formerly."

The Hygea Hospital in Richmond, Va., will be closed from July 15 to September 1st, for the purpose of enlarging the institution. This is the third time additions have had to be made, owing to the rapidly increasing number of patients, which is the best recommendation a hospital of this kind could possibly have. The success of the Hygea Hospital in the treatment of medical cases add more to the correct idea that patients who are very sick or who have some chronic condition can be better cared for in a hospital than at home. The results of the treatment in this institution goes far to prove that this is true.

This hospital was only established two years ago.

In Austria, according to the Medical Age, 44 per cent. of the physicians die of heart disease. Tuberculosis carries off only 7 per cent. One in five succumb to disease of the nervous system. These facts in regard to cause of death probably apply to medical men in every part of the world. The tremendous strain, which is practically ceaseless, incident to a doctor's work, weakens the heart and the whole circulatory system. It is evident that the nervous mechanism of the body must suffer. It is because of the necessity of being out of doors in the open air so much that physicians are comparatively free from tuberculosis.

"When, as is not infrequently the case," says Dr. John N. Mackenzie, of John Hopkins University, in a recent article in the New York Medical Journal: "Long continued, disagreeable after-effects follow an operation which has established a 'cure' I am forcibly reminded of the Irishman's definition of the grippe—that it is a disease in which you are six months sick after you have got well."

A short time ago the Buffalo Roswell Park Commission announced that cancer can be cured by a serum. Now Dr. Wm. T. Councilman, representing the Harvard Medical School Experts, comes to the conclusion that cancer can only be successfully treated by surgical methods.

Every physician in Trenton, N. J., has signed an agreement not to accept contract lodge work in any form. The inception of the plan, according to a letter sent to the New York Medical Record, was due to the men holding the positions of society doctors.

Review of Southern Medical Literature.

The American Practitioner and News, February, 1905.

Thrombosis.—Dr. John B. Richardson relates his own personal experience of a thrombus developing in the internal orlong saphenous vein of his right leg, following a laparatomy for the relief of an acute intestinal obstruction. The abdominal incision healed by first intention. About ten days after date of the operation, had some pain between the external malleolus and tendo achilles, which gradually extended up the calf of the leg to the popliteal space and thence half way up the posterior thigh, and from that point it deflected to the inner aspect of the thigh up to the saphenous opening. Pain was darting irregular and severe. At the end of two weeks this pain almost disappeared and left the infirmary. Nine days later, there was an increase of pain in the leg and some oedema of foot and ankle. The next day there was burning pain and a feeling of fullness at the saphenous opening and then followed the oedema of entire limb. Was put to bed, limb elevated and was not allowed to assume the upright position or walk until the pain had disappeared. Applied hot dry flannels and took 8 grains of aspirin every three hours, which gave relief. Temperature was at no time very much above normal. Appetite, although confined to bed, was all that could be desired, and functions as a rule regular, salines being employed if alvine dejections were not regular.

The author, after having the above experience, says that after all laparotomies the patients should remain longer in bed, or at least be kept quiet—physically—for a

longer period than is usually required and carried out by the surgeon, say at least, three or four weeks. This applies with greater emphasis where the subject is advanced in years. He disadvises the usually prescribed treatment in these cases of moist applications to the affected limb, fearing that the thrombus might be softened by their employment and thus enable the force of the blood stream to set a portion or portions in motion towards the pulmonary artery and then the cerebral vessels causing embolism.

Care of the Throat in Pulmonary Phthisis—Dr. Geo. A. Robertson, in this paper, points out some facts in the care and treatment of throat complications which aggravate pulmonary tuberculosis and thus, if possible, eliminate the distressing cases of laryngeal ulceration. The neglected cases coming to a specialist with laryngeal involvement where it is easy to see the trouble might have been avoided, impresses one more and more of the valne of careful and regular examination of the throat in all cases of well developed phthisis. And it is well in cases where the conditions make us fear active diseases will develope, that a thorough acquaintance of the nose and throat conditions be gained.

Children of tubercular parents, also those that are weak and sickly are all favorable subjects for beginning tubercular disease. Should the nose be blocked by spurs, septal ridges or great boggy turbinates, the lack of air space makes for two conditions: either very shallow breathers, who do not find vigorous exercise possible, or mouth breathers, both of which conditions are injurous to healthy membranes. The nostrils should be opened up and as much space as possible made in the nasal chambers. Patients with adenoids or hypertrophied tonsils have ever a vulnerable point where foreign substance lodge and decay, where germs thrive and multiply. The absorption from such places as these is constantly going on and are treated for indigestion, etc.

In the fully developed cases of phthisis the nasal and pharyngeal spaces should be thoroughly overhauled. Recommend plenty of fresh air and out-of-door life in mountains, if possible. The constant inhilation of irritating particles which are ever present in poorly ventilated houses and shops makes the lining membrane of the throat lax and congested with loss of tone so that when the days work is done and the patient goes out in the fresh air instead of the cold causing a rapid contraction and stimulation to the circulation there is greater congestion due to loss of tone and still more favorable lodging places for infectous particles. Every practitioner is familiar with the pain on swallowing, the choking, the inability to raise sputum, the terrible thirst and slowly starving patient, indicating a tubercular ulceration of the larynx.

On examining with the laryngeal mirror the tongue is full, throat relaxed, laryngeal tissues swollen and red, often boggy. There may be a fold of mucus membrane between the cords. Voice is rough and husky. At this time patient is constantly clearing the throat, no mucus to clear away, but a feeling as if a foreign body was present in the throat. This goes on until the throat looks like raw beef. Two-thirds of the coughing in tuberculosis is unnecessary, even worse than useless, for it is so irritating. When there is phlegm the cough is needful, but much of the time nothing come up when the patient coughs and all he does is to scrape and tear the membrane. Explosive cough is distinctly bad. It soon becomes a habit. One should not use heroic treatment in these cases in the way of strong local applications, but depend on cleansing sprays and simple alkaline washes Forbid all use of the voice when there is great fatigue.

Follicular Tonsilitis.—Dr. Sam Myer regards the cause of this disease as being due to an existing rheumatic or gouty diathesis and recommends for the prevention of recurrence the daily use of alternating hot and cold douching of the front of the throat, washing the mouth and sponging the throat with some antiseptic, thus preventing the accumulation of the micro-organisms. The usual remedies are recommended. When pus forms it should be opened with a sharp-pointed curved bistoury, incision being made through the upper portion of the anterior pillar of the fauces, the pus being more frequently encountered there than in the tissue of the tonsil itself. The incision should be made from the tonsil toward the pharynx so as to avoid injuring the blood vessels lying external and anterior to the tonsil.

A Report of Some Cases.—Dr. G. A. Hendon reports some very interesting cases and cites some of the difficulties the general practitioner encounters when a hospital, etc., are not to be had.

Atlanta Journal-Record of Medicine, January, 1905.

Tuberculosis as a Sociological Factor.—Dr. R. R. Keene suggests many of the most important rules and regulations that our State Board of Health would do well to adopt and enforce.

Cerebrasthenia the Bane of the American Brain Worker.—Dr. E. Von Goidtsnoven gives a most interesting paper on the subject named above.

Facts and Fallacies in Gastro-Intestinal Work.—Dr. L. Amster gives the more recent ideas in regard to this subject and thus explodes some of the older and at one time well founded theories.

Prostatic Massage.—Dr. W. L. Champion says that while advances has not been made as rapidly in genito-urinary work recently as in other lines the acknowledged fact that urethral infection extends to the adjacent glandular structures, and a field has been opened whereby relief from these conditions can be obtained by massage properly performed is an advance in keeping with other pathological conditions. This does not apply to prostatic hypertrophy, but involvement of the glandular structures by extension of urethral infection. The author has his patient stand with elbows on seat of chair, leg straight and feet separated. Use pressure over the bladder with left hand and massage prostate with forefingers of right hand. The use of the rubber finger cot makes the treatment less objectionable to the patient and more cleanly to the surgeon. The fingers should be passed up to the base of the prostate and pressure made as the finger is brought toward the apex. Firm pressure should be made over the entire gland, noting the impression made on the patient. If he becomes fainty give short massage, increase it next time. Massage once a week in some cases does very well, in others where the urine is cloudy and a heavy sensation in the gland with a frequent desire to micturate a massage every day may be necessary. Have patient pass a little water before massage then the rest of it after and see how much of the secretion from the gland there is in it after treatment. Always irrigate the bladder after massaging with an antiseptic solution so as to cleanse it of any septic material that may be present. Should note the condition of the vesicles also if any concretions in the prostate. Stripping of the vesicles is necessary to remove gonorrheal infection, and in this way may obtain a specimen of semen to determine whether the patient is sterile or not. By massage of the prostate the circulation of the gland and adjacent diseased structures is stimulated and the secretion passed out. Sensation is blunted by massage because the patient is always unable to empty the bladder after a massage; therefore, in cases of spasmotic contractiou of the neck of the bladder and deep urethra, this is indicated. "Clap shreds" seen in the urine of chronic cases that remain after seemingly all treatment has been exhausted will many times disappear after a systematic course of massage.

The Southern Clinic, January, 1905.

Medical Treatment of Gallstones.—Dr. Hubert Richardson quotes the experiments made by Varghan Harley and Wakeline Barrett of placing large gallstones in the gall-bladders of healthy dogs and after six months discovered that they had entirely disappeared. They also inserted gallstones into the gall-bladder and at the same time produced cholecystitis, with the result that the gallstones remained unaltered. In the later cases there was a deficiency of bile acids. From the above experiments the author says it is evident that by the administration of glycocholate of soda it must be possible to dissolve gallstones in the bladder and even when cholecystitis is present glycocholate of soda is indicated, not only as a prophylactic, but as a solvent for stones already present and that in those cases only in which there is an occlusion of the gall duct is surgical interference permissable.

Virginia Medical Semi-Monthly, January 27, 1905.

The Accurate Estimation of Pulse Tention in Life Insurance Examination.—By Henry Werrman Cook, M. D., Richmond, Va.

Intussusception— A Clinical Report With a Few General Remarks —Dr. J. Hamilton Browning points out the great frequency of this condition of intestinal obstruction in infancy and the danger of it resulting from dysentary, colitis and on it being diagnosed as such. The great length of the mesentary at this age, the mobility of the cœcum and ascending colon, the improper feeding of children most frequent when child is being weaned and the frequency of intestinal disorders which follow such as colic, entero-colitis and dysentary are at their heights should cause the family practitioner to ever be on the alert and look carefully into every case that does not respond promptly to treatment. The case reported had the following symptoms on which the diagnosis of intussusception was made: Tenesmus intense and almost constant passages of bloody mucus with small amount of dark fæcal matter. Child had not vomited during the day but had refused food. Temperature slightly elevated, pulse 145, expression was one of pain and exhaustion, and position was approaching opisthotonos. On palpation abdomen was found relaxed and empty on right side; in left side was found a large elastic mass, very much like a distended bladder, freely movable and apparently not very tender to touch. About one and one-half inches of bowel was protruding from anus, and looked like inverted ileo-cæcal junction; it was easily pushed up beyond sphincter, but would soon return, due to great tenesmus. Child was placed

in knee-chest position and large enema's of normal salt solution were given during the night without effect. The following morning found the ileo-cæcal rales and the appendix protruding from anus. On second day after the operation patient had diarrhœa which lasted for a few days. Patient discharged cured on 15th day.

Adenoids, the Harm They Do and What to Do With Them.—Dr. F. M. Hanger gives the causes, symptoms, prognosis and treatment of the above condition. The symptoms of well-marked cases are fully given under atypical cases may find the only symptom is earache, with more or less dullness of hearing with each attack. At times the only symptom is cough, very pronounced in character, which recurs with every cold that the child takes and lasts for several weeks. The cough does not yield to the usual remedies, but finally wears itself out. There is usually some earache and deafness with each recurrence. Treatment of adenoids is their immediate removal, preferable under ether anesthesia. This is not necessary for adults as cocaine is quite sufficient. There is, no doubt, that death occurs with alarming frequency from the use of chloroform in patients who suffer lymphatism, and they are peculiarly susceptible to chloroform narcosis.

Virginia Medical Semi-Monthl, January 13, 1905.

Management of Acute General Peritonitis.—Dr. D. Garland Sherrill limits himself to this consideration of two forms of infection; first, acute septic peritonitis, in which the poison is so intense that the patient dies from profound toxemia before the local changes have progressed to the point of pus formation; the second, general suppurative peritonitis in which pus is found free in the peritoneal cavity without any localization of the process. The two forms result from infection following perforations of alimentary canal rupture of urinary or gall bladder, abdominal operations, puerperal infection, and disease of ovaries and tubes. Many cases, especially of the septic type, result fatally, regardless of the time at which they are seen or the treatment employed, while some respond to medical and more promptly to applied surgical measures.

Medical treatment is indicated only in those cases where surgical aid is refused by the patient, and in those in which the grave condition of the patient renders it likely that an operation will remove the slight chance remaining for recovery. In cases seen early where operation is refused, it is exceedingly important before medical treatment is commenced to determine, if possible, the causative lesion. In many cases this cannot be done, but careful attention to the history and symptomatology will in a majority of cases enable the attendant to reach a conclusion upon which he may plan a logical course of treatment. From surgical standpoint in the largest number of cases prompt interference for the relief of any of the causative conditions before the serosa is soiled or while the peritonitis is still confined to a limited portion of the membrane offers the best chance of recovery.

The outcome of a given case will depend upon the following factors without reference to special steps in the operation or the subsequent case. 1. The virulence of the infection. 1. The quantity of the infecting medium. 3. The resistance of the patient. 4. The activity of the organs of elimination. 5. The time at which the patient comes to operation after the poison enters the cavity. 6. The dexterity and a thoroughness of the surgical procedure, no matter what may be the special method of the operator in attempting to reach the desired end.

Use of Bisulphate of Soda in the Treatment of Typhoid Fever—A Report of Cases.—Dr. John Egerton Cannaday says bisulphate of soda, also known as monosodic sulphate ($NaHSo_4$ in contradistinction to Glanbers salt Na_2So_4) contains two molecules of water of crystalization and is deliquesent crystalizes in long four-sided prisms, is decomposed by air water or alcohol after a sufficient lapse of time. It is a fairly stable compound. It is decomposed into H_2So_4 and Na_2So_4 and is obtained by heating sodium nitrate $NaNo_3$ with H_2So_4, or by the action of warm H_2So_4 on Na. Experiments have been made which go to prove that sodium bisulphate in solution of 1-1500 is antiseptic to typhoid bacillus, also that bisulphate of soda is a direct chemical antidote to the toxines of the typhoid bacillus. It is used in the strength of 7½ grains to an ounce of water, two ounces of this solution being given every three hours. It corresponds in acidity to the HCl of the stomach, and hence promotes digestion, which is at a very low ebb in this disease, especially if the temperature runs at all high. The solution is not at all nauseous and patients do not. as a rule, object to the taste. From the report of cases the results were very good.

Conclusions: That the bisulphate of soda is a non-toxic intestinal antiseptic; that it keeps the mouth clean, promotes digestion by its acidity, prevents tympany and lessens diarrhoea.

Book Notices.

The Suppression of Tuberculosis, together with Observations Concerning the Phthisiogenesis in Man and Animals and Suggestions Concerning the Hygiene of Cow Stables and the Production of Milk for Infant Feeding, with Special Reference to Tuberculosis. By Professor F. von Behring, University of Marburg. Authorized translation by Charles Bolduan, M. D. First edition, first thousand. John Wiley & Sons, New York; Chapman & Hall, Ltd., London. 1904.

This little brochure, ably translated from the German by Charles Bolduan, M. D., should receive the earnest attention of all physicians interested in this disease.

The Urine and Feces. A Practical Manual on the Urine and Feces in Diagnosis. By Otto Hensel, Ph.G., M.D., Bacteriologist to the German Hospital, New York, and Richard Weil, A.M., M.D., Pathologist to the German Hospital, New York, in collaboration with Smith Ely Jelliffe, M.D., Ph.D., Iustructor in Pharmacology and Therapeutics, Columbia University; Visiting Neurologist, City Hospital, New York. In one octavo volume of 334 pages, illustrated with 116 engravings and 10 colored plates. Cloth, $1.75, net. Lea Brothers & Co., Publishers, New York and Philadelphia. 1904.

Although there are a number of large and exhaustive treatises on clinical and laboratory methods of diagnosis, it is believed that this is the first compact, convenient and practical hand-book on the subject. It has been the aim of the authors to supply a trustworthy guide arranged for ready use, and complete enough for the actual daily needs of the working practitioner.

With the rapid growth of the use of precise methods in diagnosis the value of a manual of this kind becomes more and more evident. The authors, from their large hospital experience, are peculiarly fitted to furnish exactly the information that is most valuable, and it is hoped that this volume will prove an indispensable assistant to every progressive physician.

A Manual of Clinical Diagnosis by Means of Microscopical and Chemical Methods. By Charles E. Simon, M. D. Fifth edition; thoroughly revised and enlarged. Lea Brothers & Co., Philadelphia and New York, 1904.

Exact methods of diagnosis, with their latest development, are simply and clearly exposed. The chapter on the blood, on the technique of its examination, have been almost entirely rewritten. The subject of leucocytosis has been rearranged in such a manner that hyper and hypoleucocytosis are separately considered in connection with the different varieties of leucocytes. A new section deals with the kryoscopic examination of the blood. Additions have been made in the chapters on the bacteriology and parasitology of the blood, on the feces, sputum, urine, transudates and exudates. The number of illustrations have been enlarged and six new colored plates, representing hæmin crystals, elements of normal blood, poikilocytosis, changes in red cells, lymphocytes, granulocytes and urinary casts are more nearly true to nature than any that have hitherto been prepared. The publishers present to the laboratory student, undergraduate and practitioner an admirable book.

Appendicitis and Other Diseases About the Appendix. By Bayard Holmes, M.D., Professor of Surgery in the University of Illinois, of Clinical Surgery in the American Missionary College, Chicago; Attending Surgeon in the Chicago Baptist Hospital. Boards, $2.00 net, prepaid. Sold only by subscription. 8vo, 368 pages. 39 illustrations in the text. 7 plates, two of which are in color. D. Appleton & Company, Publishers, 436 Fifth Avenue, New York, and 203 Michigan Avenue, Chicago.

In this book its talented author gives us a portion of his forthcoming volume on the surgery of the abdomen, which will be his second volume on surgical emergencies. He considers chiefly the practical aspects of abdominal surgery, which will make the work appeal not merely to the specialist in surgery, but also to the general practitioner who is called upon to do emergency work. In carrying out this idea of practicality Dr. Holmes illustrates each topic by numerous clinical reports, which have a decided teaching value. Being based largely upon the author's experience, naturally the reader will expect to find the work very thoroughly impressed with its creator's individuality. Such indeed is the case in this instance, but the work rather gains than loses by this, since Dr. Holmes has ability and skill which are the result of years of close attention to this line of work, combined with exceptional facilities for the application of the knowledge which he has gained from his experience.

The practitioner will in this work find graphic pictures of appendicitis in its every manifestation. He will have presented to him a summary of its threatening possibilities, and will be shown how every arising exigency should be met. He will be carefully and clearly taught the steps and tech-

nique of the surgery of this disease, and will after careful study of the work find himself in a much better position to recognize the necessities of treatment, where and when operation is needed, and likewise the time and cases where conservatism should be practiced. The work should very readily make for itself a conspicuous place in every physician's library.

The American Year-Book of Medicine and Surgery for 1905. A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of George M. Gould, A.M., M.D. In two volumes. Volume I, including General Medicine; Volume II, General Surgery. Two octavos of about 700 pages each, fully illustrated. Philadelphia and London: W. B. Saunders & Co., 1905. Per volume: Cloth, $3.00 net; Half Morocco, $3.75 net.

The 1905 issue of Saunders' American Year-Book of Medicine and Surgery fully maintains the pre-eminent position which it long ago established. Dr. Gould, the editor, has associated with him a staff of men of the greatest ability, shown in the conscientious thoroughness with which each article is prepared. Here the practitioner has placed before him, and at a very moderate price, the cream of all the medical literature published during the past year, and in such a form that it is readily digestible. As a compendium of medical and surgical progress, it will prove invaluable; for the practitioner anxious to keep abreast of the advances in the subjects treated, it will be of the utmost assistance. The text, as usual, contains a number of illustrations of practical value; there are also nine insert plates of much excellence.

Essentials of the Practice of Medicine. Prepared especially for students of medicine. By William C. Williams, M.D., formerly Instructor in Medicine and Lecturer in Hygiene, Cornell University; Tutor in Therapeutics, Columbia University (College of Physicians and Surgeons), New York. 12mo of 461 pages. Philadelphia and London: W. B. Saunders & Company, 1905. Double number. Cloth, $1.75 net.

In this new volume in Saunders' Question-Compend Series the student is provided with a book of the utmost practical value. Throughout the work special stress has been laid on the more common aspects of the various diseases, emphasizing the contrasting points in similar conditions, so as to render differential diagnosis as easy as possible. Symptomatology and treatment have likewise been adequately, although concisely, considered. In fact, this little work is the best we have seen, and for students preparing for examination it will be a most welcome and trusty aid. It contains a vast amount of practical, essential information in the least possible space.

The Surgical Diseases of the Genito-Urinary Tract, Venereal and Sexual Diseases. A Text-book for Students and Practitioners. By G. Frank Lydston, M.D., Professor of the Surgical Diseases of the Genito-Urinary Organs and Syphilology in the Medical Department of the State University of Illinois (the College of Physicians and Surgeons); Professor of Criminal Anthropology in the Kent College of Law; Surgeon-in-Chief of the Genito-Urinary Department of the West-Side Dispensary; Fellow of the Chicago Academy of Medicine; Fellow of the American Academy of Political and Social Science; Delegate from the United States to the International Congress for the Prevention of Syphilis and the Venereal Diseases, held at Brussels, Belgium, September 5, 1899, etc. Second revised edition. Illustrated with 233 engravings and 7 colored plates. 6½ x 9¾ inches. Pages xv–1008. Extra cloth, $5.00, net. Sheep or half-russia, $6.00, net. F. A. Davis Co., Publishers, 1914–16 Cherry Street, Philadelphia.

In his particular field no surgeon enjoys wider and better reputation than Dr. Lydston, and his ability as an author has become so well established that works produced by him have a double value. They are orthodox, and are thoroughly scientific, and have literary qualifications which give them exceptional attraction. These qualities are especially prominent in the present work. Dr. Lydston has given us the benefit of many years's experience in his favorite line of practice, and has displayed his usual powers of discrimination and keen observation in preparing a work which has the stamp of individuality and of practical value.

We feel no hesitation in saying that this work of Dr. Lydston's is the most important of recent contributions in its class, and in this second edition we are supplied an up-to-date book in every respect.

The Vermiform Appendix and Its Diseases. By Howard A. Kelly, A.B., M.D., Professor of Gynecology in the Johns Hopkins University, Baltimore, and E. Hurdon, M. D., Assistant in Gynecol-

ogy in the Johns Hopkins University, Baltimore. With 399 Original Illustrations, some in colors, and 3 Lithographic Plates. Philadelphia and London: W. B. Saunders & Company, 1905. Price, Cloth, $10.00, net; Sheep, $11.00, net.

This work is the outcome of an investigation undertaken by Dr. Kelly several years ago, when he first began to notice the condition of the appendix in every abdominal operation. He soon found that the record of these changes grew to an unexpected proportion. The literature on this subject is very exhaustive, but in this volume Dr. Kelly has certainly made it very complete. It is accurate from every standpoint. The author recognizes the very great advantage in teaching surgery with demonstration to paraliel the text with illustrations. Good illustrations are a most valuable handmaid in medical instruction, for what the eye of the student grasps remains, as old Horace memorably said, indelibly impressed after a fashion unequaled by the clearest verbal description. The illustrations in this book have been prepared with so much pains and so much intelligence that they deserve more consideration than merely glancing hurriedly over them. In the microscopic pictures even the individual cells have been drawn with the utmost fidelity; in no case have they been schematized. Many of the pictures will be best appreciated if studied with a low-power hand lens. The book contains 824 pages and is completely indexed and substantially bound. It is no doubt the greatest book on this special subject that has ever been published.

Conservative Gynecology and Electro-Therapeutics. A Practical Treatise on the Diseases of Women and Their Treatment by Electricity. By G Betton Massey, M.D., Attending Surgeon to the American Oncologic Hospital, Philadelphia; Fellow and ex-President of the American Electro-Therapeutic Association; Member of the Societe Francaise d'Electro-Therapie, American Medical Association, etc. Fourth edition, revised, rewritten and greatly enlarged. Illustrated with Twelve (12) Original Full-page Chromo-lithographic Plates; Twelve (12) Full-page Half-tone Plates of Photographs taken from Nature, and 157 Half-tone and Photo-engravings in the text. Pages xvi–468. Royal octavo. Extra Cloth, Beveled Edges. Price, $4.00, net. F. A. Davis Company, Publishers, 1914–16 Cherry Street, Philadelphia.

It is indeed a great compliment for any author to be called upon for the fourth time to furnish corrections for new editions of his books. The progress of electro-therapeutics in general since the appearance of the last edition has been very great, and this has necessitated a complete rewritting of the more technical portions of the book, particularly that referring to the constant current and the theories and practical application of electrolysis and phoresis. Four entirely new chapters on treatment of cancer by electro chemical destruction and sterilization have been added, and it is expected that these will be especially interesting to a large number of physicians now engaged in the treatment of this affection by Roentgen rays. We notice that a portion of the work relating to the Apostoli treatment and to the author's methods for averting unnecessary sacrifice of the pelvic organs of women by the use of electric modalities have undergone but very little change in this revised edition. These questions have passed largely from the controversial stage into that of acceptance and action. The former opponents of this form of conservative gynecology have illustrated their purely surgical leanings, it is true, by transferring their attention to the surgery of the kidney and upper abdomen in the medical arena; in the meantime, however, a numerous class of physicians throughout the world have essayed to meet the problems of true gynecology presented to them in their offices and daily visits with added power because of the knowledge of electro therapeutics.

The illustrations in this book are beautiful and the publishers deserve great credit for bringing this book out.

The Practical Medicine Series of Year Books, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly. Under the General Editorial Charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume II, General Surgery. Edited by John B. Murphy, M.D., Professor of Surgery, Northwestern University Medical School. Series 1905. Chicago: The Year Book, Publishers, 40 Dearborn Street.

In this volume the editor has reproduced extensively a number of articles which treat in an analytical or statistical manner of the pathology or operations of an organ, or set of organs. based upon an enormous or extraordinary experience of an individual, which is sufficient to make his statement authoritative. The plan he believes to be more instructive than citing the lesser experiences of a great number of men, which accounts for the absence of an immense number of articles published in the last year.

Possibly the most important chapter in this book is the one on surgery of the pancreas. This subject has materially advanced during the last year and the etiologic relations between its diseases and the obstructive and infective lesions of the bile ducts has been clearly established. Gall-stones and the infective diseases of the gall-bladder and ducts are now uniformly recognized by their early manifestations and timely operations are performed. The book deals with this subject fully. It also deals with a number of operations for diseases of the stomach other than malignant.

This book belongs to a series published by the Year Book Publishing Company. Price $1.50, or for the entire set of ten volumes $5.50.

The International Medical Annual. A Year-Book of Treatment and Practitioners Index. Contributors, Prof. A. H. Carter, M.D., F. R. C. P., Frank J. Charteris, M.B., Ch.B., William M. Chowning, M.D., Minneapolis; Prof. C. A. Ewald, M.D., Berlin; E. Hurry Fenwick, F. R. C. S., A. E. Giles, B.Sc., M.D., F. R. C. S., Edward W. Goodall, M.D., Wilfred Jas. Hadley, M.D., F. R. C. S., Prof. Graeme M. Hammond, M.D., New York; Robt. Hutchinson, M.D., F. R. C. P., Robt. Jones, F. R. C. S., Priestley Leech, M.D., F.R.C.S., John McIntyre, M.B., C.M., P. Lockhart Mummery, B.C.F.R.C.S., William Murrill, M.D., F.R C.P., Jos. Priestley, B.A., M.D., D.P.H., R. J. Probyn Williams, M.D., M.R.C.S., Walter E. Rahte, M.D., Philadelphia; Prof. Boardman Reed, M.D., Philadelphia; Prof. A. W. Mayo Robson, D.Sc., F.R.C.S., J. W. Watson Stephens, M.D., D.P.H., Prof. Robt. Saundby, M.D., F.R.C.P., LL.D., Dr. DeLancy Rochester, M.D., Buffalo; Purves Stewart, M.A., M.D., Geo. Fred Still, M.A., M.D., F.R.C.P., Prof. Ralph Stockman, M.D., F.R.C. P.E., A. Hugh Thompson, M.A., M.D., M.R.C.S., Wm. Thornburn, F.R.C.S., B.Sc., M.D., Hunter F. Tod, M.A., M.D., F.R.C.S., A. H. Tubby, M.S. M.B., F.R.C.S., Joseph G. Turner, F.R.C.S., L.D.S., Norman Walker, M.D., Otto Walther, M.D., Nordrach; P. Watson Williams, M.D., M.R.C.S. 1905. Twenty-third Year. New York: E. B. Treat & Company, 241–243 West 23d Street. Price $3.00.

This issue bears evidence of continued progress in editorial equipment and improvements, notably the increased size of page from a 12mo to an octavo. This will make the book more convenient to handle and afford a better opportunity for the display of illustrations, and all within the compass of a single handy volume. Its dictionary make-up, supplemented by a full index makes it the most complete and satisfactory year-book published. The busy practitioner is able to keep himself in touch with the most recent advances in knowledge and practice respecting any subject in medicine and surgery. Its editors are among the leading specialists of the world, selected for their fitness for the task assigned them. The abundant references for further investigation have been a most important feature of the work and are continued in the enlarged form, and happily all without increased cost to the subscriber, for this year at least.

Studies in the Psychology of Sex—Sexual Selection in Man. I. Touch. II. Smell. III. Hearing. IV. Vision. By Havelock Ellis. 6¾ x 8¾ inches. Pages xii–270. Extra Cloth, $2.00, net. Sold only by Subscription to Physicians, Lawyers and Scientists. F. A. Davis Company, Publishers, 1914–16 Cherry St., Philadelphia.

As in many other of these studies and, perhaps in more than in most, the task attempted in the present volume is mainly of a tentative preliminary character. There is here little scope yet for the presentation of definite scientific results. However, it may be in the physical universe, in the cosmos of science our knowledge must be nebulous before it constellates into definitely measureable shapes, and nothing is gained by attempting to anticipate the evolutionary process. Thus it is here for the most part that we have to content ourselves at present with the task of mapping out the field in broad and general outlines, bringing together the facts and considerations which indicate the direction in which more extended and precise results will in the future be probably found. The book is a very interesting one. Not from a purely scientific standpoint, because it is, as has been intimated, impossible to deal with such a subject in a scientific way. It may appeal to the laymen more than to the medical mind. To anyone, however, who is interested in this kind of literature can do no better than buy this book.

The Practical Medicine Series of Year Books Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Gustavus P. Head, M. D., Professor on Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume I, General Medicine. Edited by Frank Billings, M.S., M.D., Head of Medical Department and Dean of the Faculty of Ruch Medical College,

Chicago, and J. H. Salisbury, M. D., Professor of Medicine, Chicago Clinical School. Series 1905. Chicago: The Year Book, Publishers, 40 Dearborn St.

The past year furnishes valuable contributions to the subjects included in this number of the Practical Medicine Series on different medicines. The value of these contributions is evinced by their corroborative and practical bearing, rather than by any new suggestions or discoveries made by the writers. This volume is intended to place before the reader a review of medicine in a condensed form and still full enough to convey the full meaning of the authors. As far as possible the condensed articles are so arranged as to make the text continuous and smooth, but this cannot be done in all cases, and in no event is padding used, for the book is what its name implies—a review of the best literature in medicine in the year.

The price of this volume is $1.00. For the entire series of ten volumes $5.50 payable in advance.

The Opthalmic Year-Book. A Digest of Opthalmology with Index of Publications for the Year 1903. By Edward Jackson. A.M., M.D., Emeritus Professor of Diseases of the Eye in the Philadelphia Polyclinic; President of the American Academy of Opthalmology and Oto-Laryngology; Opthalmologist to the Denver County Hospital, St. Anthony's Hospital, and Mercy Hospital, Denver, etc. With Forty-Five Illustrations. The Herrick Book and Stationery Company, Denver, Colorado, 1904.

The literature bearing upon opthalmology grows by twenty to thirty thousand pages each year. Of this, one-half may claim to be original matter of some value. Its bulk renders necessary some plan of indexing or abstracting to render it available for any practical use. Each progressive student, even though he can command but a part of this literature has been compelled to adopt some system of classification and expend much time and effort in carrying it out, if he would refer in the mass of books and periodicals to any particular fact or discussion wanted. The need for a condensed account of the great bulk of literature causes almost every opthalmic journal to include an abstract department. These abstracts are often of great value. But systematic arrangement of such material is essential to its highest usefulness, and this is impossible to obtain in even a quarterly journal.

This Year-Book has a great advantage in this respect. In this branch of practice of all others, an arrangement of this kind is a necessity. The author and publisher in this case have supplied the profession with a book well arranged and will meet every requirement.

Gynecology. Medical and Surgical Outlines for Students and Practitioners. By Henry J. Garrigues, A.M., M.D., Gynecologist to St. Mark's Hospital in New York City; Consulting Obstetric Surgeon to the New York Maternity Hospital; Consulting Physician to the New York Mother's Home and Maternity; Honorary Fellow to the American Gynecological Society; Honorary Fellow of the Obstetric Society of Edinburgh; Honorary Member of the College of Physicians of the German Dispensary, ex-President of the German Medical Society; Formerly Professor of Gynecology and Obstetrics in the School for Clinical Medicine, and the Professor of Obstetrics in the Post-Graduate School and Hospital. With Three Hundred and Forty-Three Illustrations. Philadelphia and London: J. B. Lippincott Company, 1905.

This book is particularly written for students in medical colleges and such general practitioners who desire to make themselves acquainted with modern gynecology. It is an outline of the whole system of gynecology calculated to be a guide for beginners. Minor operations which the general practitioner is likely to undertake are described in detail. The book is in every sense practical, and evidently there must be a need of just this kind of a work. It has 460 pages with a great many illustrations.

Literary Notices.

To Dr. Emil Reich's slashing article in The Contemporary—"The Bankruptcy of Higher Criticism"—Canon Cheyne replies under a caption equally pointed—"Shall We Put the Clock Back in Biblical Criticism?" The Living Age reprints these two notable contributions to current discussion in its number for March 25 and April 8.

Everybody wants to know: What manner of man is the Marquis Oyama, the little old Japanese who, last month, out in Manchuria, won the greatest battle of modern history; what the Lewis and Clark Exposition, about to open, really stands for; how the Government got the facts about the beef industry; whether the State of Kansas is putting up a real fight against the Standard Oil Company, or only making a "bluff;" what Dr. Osler actually said and actually believes about men over forty and men over sixty; how it happens that the University of Virginia—Jefferson's University—installs its first president on Jefferson's birthday (April 13) of this year; what are the real

issues in the Chicago municipal election; what the trouble is in Austria-Hungary; what Japan's victory at Mukden signifies. All these questions are answered—some in more detail than others—in the Review of Reviews for April. No other magazine of the month treats of these special subjects so fully, or gives so much other useful information on a wide range of timely topics.

Abstracts of the Leading Articles of the Month.

The Duration of Pregnancy.

Pinard (La Gréce Médicale) considers three main questions: 1. What is pregnancy? 2. When does it begin? 3. When does it end?

He refuses to accept the old definition that pregnancy is that condition of a woman who has conceived and carries in her uterus the product of conception. Cases of protracted retention of the fetus at once belie this definition; for carrying a dead fetus does not constitute pregnancy. His definition of pregnancy is "the functional state of a woman after conception and during the growth and nourishment of the fetus." The moment the fetus is dead the condition is no longer *gestation* but *retention*.

In considering the second question great difficulty is met because it is not the truth, as ordinarily believed, that copulation is synchronous with beginning of pregnancy. Spermatoza may be deposited at the vulva with a practically undisturbed hymen and pregnancy ensue. The queen-bee may only become pregnant three months later. In the bat the spermatozoon is received by the mother at the end of winter and the meeting of spermatozoon and ovum does not take place until the following spring. In the doe of the Roe-buck the spermatozoon and ovum come in contact several days after copulation, which is then followed by a latent period covering three months. In the human species at least 27 hours are necessary for the spermatozoon to travel through the uterine and tubal cavities. Even after this several days may be lost before contact with the ovary is consummated. At this point also the ovum may not be in condition to be fecundated. Intra-cellular penetration and not merely copulation of the spermatozoon with ovum is essential for its fecundation.

Between fecundation of the ovum and gestation a period of latent life occurs during which, thanks to the vitellus, the ovum lives at its own expense. Reaching the uterine cavity the fecundated ovum finds a lodgment in the specially prepared mucosa. Menstruation is only an abortion of the ovum. From the moment that the maternal economy participates in the development of the species, ovulation sets in and persists throughout the period of genital life. When the fecundated ovum makes demands on the maternal structure for nourishment gestation begins.

The period of intra-uterine life of the fetus is fixed and cannot be explained. If not delivered at the termination of its fetal life—nine months—it simply dies. The expulsion of the fetus is determined by two factors: 1, traumatism; and 2, hyper-extension of the uterine wall. These traumatic accidents induce the reflex which expels the fetus. The directing force is the corpus luteum of pregnancy.

The period of pregnancy, according to Varnier, based on the study of 1000 cases in 280 days. Certain cases have gone as long as 320 days. Neither ossification, nor weight, nor length—on the part of the fetus—assist us in determining completed gestation. More than one-third of the human species does not complete its full intra-uterine life. Certain influences may account for this. Certain famous stallions have required a longer period of gestation in the mare than others. So that there may be similar influences in different males of the human species. First gestations are less protracted than later ones. The weight of the newly-born child has been observed occasionally to be as much as 9 9-10 kilos. The average weight is less than six kilos.

The genital rhythm of the female consists therefore of ovulation, fecundation, direction of gestation by the corpus luteum, expulsion, lactation; fresh ovulation and fresh gestation—in case of accident, menstruation.

Rupture of the Muscles in Typhoid Fever.

Perachaud (British Medical Journal) considers the frequency of muscular lesions in typhoid, it is curious that rupture should seldom occur. Violent movements, such as take place in delirium, appear to be the chief cause, the muscles most usually affected being the rectus abdominalis. As a matter of fact the real cause is not accurately known. The male sex is most usually affected. Muscular rupture occurs in the third week or during convalescence, and sometimes accompanies degeneration of the bony structures. He describes a most exceptional case in which rupture occurred between the fifth and sixth day of the disease. The patient's mind is usually clear; he is conscious of a feeling of prostration, and at the time of rupture of sudden pain and tenderness sufficiently severe to cause him to cry out. Examination at this time reveals an irregular depression outlined in the substance of the abdominal rectus. The sizes vary. A

later swelling due to hemorrhage is noticed; the condition may be unsuspected until the hematoma is noticed, which forms an ovoid tumor with the lesser extremity pointing to the pubes. It is rare for it to exceed the size of an orange. The skin is movable, and it is even possible to slightly displace the tumor laterally. In due time an ecchymotic tinge appears in the skin, varying in its intensity according to the thickness of the muscle and the impermeability of its sheath. Sometimes hemorrhagic discoloration is first noticed below the pubes and at the upper part of the thighs. Absorption may take place, but it is not so usual as suppuration, which occurred sixteen times in thirty-five cases, and appears to be due to the presence of Eberth's bacillus. The prognosis is grave, chiefly because muscular rupture occurs in cases of severe typhoid, death being due to myocarditis or some other complication of the disease. But even in those cases where death is not due to one of the usual complications of the disease, suppurating hematoma is serious, as the resulting abscess may point internally, and set up septic peritonitis. So soon as the diagnosis is made surgical interference is called for, as delay may expose the patient to risk.

Surgical Wounds of the Cervical Portion of the Thoracic Duct.

Lecene (British Medical Journal) reports twenty-one collected instances of accidental wounding of the cervical portion of the thoracic duct in course of a surgical operation. Cases of this infrequent though not exceptionally rare lesion may be arranged in two groups: one in which the nature of the injury is apparent at the time of the operation, the other in which the indications of such an accident are not made out until a later period. In cases of the first group the characteristic sign of the injury is a flow that is sometimes rhythmical into the wound of a clear or a white and latescent fluid. The indications in the second group of cases are a discharge from the wound of lymph or chyle, and in course of time, intense thirst, emaciation, and general asthenia. The prognosis of this injury with regard to the life of the patient is not serious, one only of the twenty-two collected cases having a fatal ending; but it is necessary to bear in mind, the author points out, that serious results may follow a prolonged and excessive discharge of lymph from a fistula in the thoracic duct.

The treatment would vary according to the nature of the injury before the completion of his operation, should endeavor to apply a ligature to the peripheral end of the wounded duct. In a very large majority of cases it would be useless, he says, to tie the central end, as the ostial valve is competent to arrest the flow of lymph. Ligature of the peripheral end, as has been proved by clinical observation, and also by experiments on animals, is quite free from danger. In cases in which the injury escaped notice at the time of the operation, the best and simplest treatment, the author believes, is to pack the wound tightly and to do away with direct drainage. Free opening of the wound with the object of exposing and closing by ligature the opening in the duct might, it is acknowledged, be found practicable and successful, but such treatment would in most cases be found very difficult, and as simple packing is usually sufficient, quite useless.

Anastomosis Between the Stomach and Esophagus, Also Resection of the Thoracic Esophagus.

Sauerbruch (Zentralbl. fuer Chir.) gives us in this article a further extension of his work along this line. The author's idea is to safely accomplish what has hitherto seemed impossible on account of sepsis, leakage and pneumothorax. The writer makes an anastomosis by cutting down upon the diaphragm, pulling up the fundus of the stomach, pushing a Murphy button down from the mouth through the esophagus into the stomach and then grasping the tube of the same through a little hole in the wall of the stomach. The other half of the Murphy button is pushed down the esophagus to the desired point where the wall is slit over it and its tube pushed through. The two halves are now united and naturally an anastomosis easily secured. In order to secure earlier adhesion of the parts anastomosed, Lugol's solution is freely painted upon them. It is very important that the fundus of the stomach be tightly sewn to the diaphragm, since three of the author's thirteen dogs died on account of a total hernia of the stomach into the chest. The esophagus is resected in the following manner: After the anastomosis has been made in the way described, the esophagus is cut through and inverted just below the button, and, after the desired portion has been removed, the lower extremity simply turned down into the stomach, very much after the manner that one disposes of the stump of the appendix. The ideas expressed in the article are certainly intensely interesting; and, they have not yet been tried upon the human.

A Case of Primary Sarcoma of the Pelvic Connective Tissue.

Pulvermacher (Zent f. Gyn.) describes the case of a patient that was 36 years old and who was delivered of her first child eight weeks previously. Shortly afterwards she noticed a painful swelling in the right lower abdominal region. Menses were

regular and she had previously been a healthy woman. The local examination revealed a mass on the right side which, on bimanual examination, reached the size of a child's head and which was apparently attached to the uterus by a pedicle.

On opening the abdomen 1½ litres of blood liquid escaped. The tumor, filling the right pelvis, was freed from intestinal and omental adhesions. The tumor was removed together with the adnexa. The left adherent adnexa were likewise removed. The thickened lower portion of the omentum was amputated and the abdomen closed. Three weeks later the patient was discharged.

Three months later she returned complaining of abdominal pain. A tumor in the right pelvis was again mapped out which more or less extended over to the opposite side. A month later she died.

The autopsy showed a hemorrhagic necrotic tumor filling the pelvis with bloody ascites. Metastic nodules were discovered in the lung, kidney, liver, and other parts. The tumor consisted of nodules of various sizes closely adherent to the tumor was the tube. Microscopically two types of neoplasm were recognized—spindle-celled and polymorphous. The sections from the metastatic areas showed similar changes. The diagnosis by the pathologist Ludwig Pick from the gross and microscopic findings—especially as the uterus and adnexa were proven to be perfectly free from the disease. The neoplasm was an intra-ligamentous development. The conclusion reached therefore was that the tumor was a large spindle-celled sarcoma which had developed primarily in the right broad ligament and had given rise to numerous secondary nodular metastases in different organs.

Treatment of Sciatica.

Lange, in the Edinburgh Medical Journal, has obtained very good results from the use of a modified form of Schleich's injection. His method is as follows: At the point of exit of the sciatic nerve out of the sciatic foramen the skin is anæsthetized by the subcutaneous injection of a drop or two of a 1 per cent. solution of B-eucaine in 8 per cent. saline solution. Through this anæsthetized area the needle is inserted and pushed in till the nerve is pierced. As soon as the nerve is touched, a pain similar to that of an electric shock is felt in all the ramifications of the nerve. This pain is only momentary, as the injection of the eucaine is immediately commenced. In all, from 70 to 100 c.c. of the solution is injected fairly rapidly. The needle is then withdrawn, and the puncture sealed with a piece of adhesive plaster. Even during the course of the injection the pain vanishes from the nerve trunk and tender spots. Afterwards there is usually some complaint of an unpleasant sensation of tension in the injected area, but this passes off in a few hours, though the site of injection may remain tender to pressure for a day or two. Though the amount of eucaine was fairly large (from 1 gr. to 1½ gr.), no alarming symptoms of intoxication have been noted. As a rule, there are no after symptoms, but occasionally slight symptoms occur, e. g., slight nausea and diminished taste-sensation. Sometimes, a few hours after the injection, there is a slight rise of temperature. Of eight cases treated by this method, five were completely cured, two after a single injection, and the remaining three after a second injection. Several of these cases were of long standing, and had been ineffectually treated with other methods. The chief advantage of the injection treatment is the rapidity with which the cure is obtained, and this method should be kept in mind in treating obstinate cases which cannot be controlled by ordinary treatment. As regards the actual curative agent, Lange is not very clear. Manifestly it cannot be the eucaine element alone, since it is certainly swept away in a few hours at latest. Possibly the chief factor is the mechanical action of the relatively large amount of isotonic fluid. This may cause alteration in the nerve, swelling, tearing, etc., which, by the subsequent reactionary inflammation, may effect a cure just in the same way as stretching the nerve is sometimes curative.

Contribution to the Histogenesis and Pathogenesis of Chorio-Epithelioma Malignum.

Burdzinsky (Zent. f. Gyn.) gives the histories of six cases and a study of 263 published cases. His conclusions are as follows:

1. Malignant chorio-epithelioma unquestionably derives its origin from the epithelial elements of the chorionic layer and therefore presents the two typical characteristics of the letter. In the process of accumulation these elements present certain fixed changes which, on the one hand, include enlargement of cell-body and nucleus, and, on the other, a separation of the syncytial masses into single or multiple nuclear elements of the most different shapes. The resulting tumor suggests a new class of cells resembling on the one hand the elements of the syncytium and on the other hand, of the cells of Langhans.

2. The syncytium of chorio-epithelioma is able to separate not only in direct but in indirect ways.

3. The cells of Langhans are a further development of the syncytial cells.

4. Malignant chorio-epithelioma occurs in two forms—typical and atypical. The atypical form is characterized by the diffuse infiltration of the maternal structure with neoplastic cells and the action of these cells on the adjacent tissues. As a result progressive and gradual degeneration and necrosis ensue. In the typical form the muscular structure, under the influence of the neoplasm is piled up, the individual fibres lose their cells, swell up, and are gradually destroyed. Ultimately nothing of the original structure remains. The surrounding area shows moderate small-celled infiltration.

For the metastases it is not necessary for an entire villus to be transported. The circulation may tear off a portion of the aggregated cells situated on the external surface of the syncytium. Such a mass settling in a small vessel anywhere may be the focus for the further development of the neoplasm. In this manner, the peculiar vascularization of the growth, which replaces the original, is accounted for. In the course of the growth of the tumor the entire syncytial layer may disappear so that the neoplasm may finally show only the cells of Langhans. Having no real blood vessels the tumor is apt to disintegrate and present necrotic tissue and blood coagula.

Some Conditions Which May Be Mistaken for Meningitis.

Baumann (Brit. Jour. Chil. Dis.) in discussing the diagnosis of meningitis, calls attention to the fact that it is not the occurrence of the disease itself which produces diagnostic difficulties, but rather that a number of other diseases tend to assume a type simulating meningitis. The nervous system of the child is curiously unstable. Comparatively trivial ailments may mimic meningitis with an astounding degree of fidelity. The diagnosis of the three most common forms of meningitis in childhood, tubercular, posterior basic and suppurative, are then summarized. He reports a series of carefully studied hospital cases, all of which adopted meningitic types, and so for a time at least caused diagnostic difficulties. The list includes cases of typhoid, lobar pneumonia, broncho-pneumonia, influenza, mastoid disease, middle-ear disease, sarcoma of the brain, renal disease, gastro-intestinal disease and pseudo-meningitis.

It is probable that in many cases belonging to this category, the cerebral symptoms are caused by some toxic irritant produced in the course of the disease. It is therefore necessary in every suspicious case to consider carefully the history and symptomatology and to avail ourselves of all possible means of physical investigation. The history is frequently misleading. A history of influenza in the family, or of phthisis in the parents is often of importance. While a history of somnolence is, in and of itself not always important, the presence of headache accompanying and persisting during somnolence, is a suspicious symptom.

He considers Kernig's sign of little diagnostic import. It is certainly present in a large proportion of cases of true meningitis, but it may also occur in a number of widely different morbid conditions, such as pneumonia, uremia, enteric disorder, etc. On the other hand, it is often absent in true meningitis. Tache cerebral is of still less value. Head retraction is of importance only when it is very pronounced, because in a lesser degree it may be the result of a number of trivial conditions. The pulse rate is worthy of careful observation. Slowness of the pulse with high temperatare strongly suggests a cerebral lesion, though it does not serve to differentiate a meningitis from other cerebral lesions. Routine examination of urine often yields information of value. The examination of the optic fundus should never be omitted, though here again a negative result is often of little diagnostic value. On the other hand, optic neuritis and distension of the veins or blurring of the discs may occur in other conditions besides tubercular and suppurative meningitis.

Squint and nystagmus serve merely as confirmatory signs. Inequality of the pupils is not infrequently met with in healthy children. Examination of the ears should be made in all doubtful cases. Quinke's lumbar puncture should be undertaken as a matter of routine. Film preparations should be made from the fluid obtained and studied for micro-organisms, also for the variety of cells found. Normally the fluid contains few cells. In tubercular meningitis the mononuclear forms predominate, in suppurative lesions the polymorphonuclear.

The blood count may give information of value, as a count of over 25,000 or 30,000 is strongly suggestive of a suppurative process, especially if the polymorphonuclears predominate.

There is thus no single symptom or sign which will enable us to differentiate a meningitis from another disease with cerebral symptoms. The correlation of history, symptomatology and physical signs will, however, often permit the drawing of a correct conclusion. Meningitis should be assumed only when the symptoms are not only present, but persistent.

Ptosis of the Abdominal Aorta.

Stifler (British Medical Journal) says that there are two types of this condition—a dilated form and a contracted form.

Amongst general conditions which predispose to ptosis of the abdominal aorta he enumerates constitutional weakness, convalescence, diminution or increase of intra-abdominal pressure, overstrain due to lifting and carrying in attendance on the sick, or to sport, or too tight lacing. As specially predisposing conditions he mentions relaxation following gynecological or surgical interference, drastic measures for the reduction of fat, massage, water cures, other so-called "nature" cures which interfere with the abdominal circulation, shaking of the lower part of the body as in paralysis agitans or hysteroepilepsy, and most frequently of all defective supports intended for the correction of wandering kidney.

Early Operation in Appendicitis with a Special Consideration of Appendicitis in Childhood.

Alapy (Arch. f. Kinderhk) says that his experience has been obtained chiefly from a study of appendicitis in children in the first and second decades of life, in which period more than a third of all cases of appendicitis occur.

Appendicitis is, *par excellence* a disease of youth; this is natural, for the appendix in early life contains many lymph follicles, a certain number of which later undergo atrophy.

Radical measures are more frequently indicated, he thinks, in appendicitis in children. This statement may appear to be contradictory, since a conservative attitude is customary in the treatment of certain diseases in childhood, as, for example, tuberculosis of the bones and joints, whereas, the same condition in adults frequently calls for operative interference.

Appendicitis is a much more severe disease in childhood, according to Alapy, and he quotes experienced authors who share this view.

The writer observed 85 cases in the Adele Brody Hospital for Children. Deducting those cases which were discharged without having been operated upon and which were not followed up subsequently, 61 cases remain.

Of cases not operated upon, 4 died as a result of general peritonitis; 4 cases, in which diffuse peritonitis existed, were operated upon and died. Besides diffuse peritonitis there are two forms of sepsis which endanger the lives of patients suffering from appendicitis; an infection which spreads by way of the lymph or blood vessels and which involves areas some distance from the original focus; this complication was encountered twice by the writer, once in a boy of twelve years, and again in a girl four years old; secondly, a form of sepsis leading to the formation of multiple abscesses.

Under the last head 4 cases are grouped, one of which ended fatally. Six cases of ileus are recorded, of which 4 died.

He emphasizes the fact that appendicitis in children is graver than it is in adults.

During the onset children are more liable to suffer from diffuse peritonitis; they are more apt to succumb to a worse or less extensive peritonitis, for the reason that their power of resisting disease is not so great.

In childhood metastatic infections occur as often, intestinal obstruction is strikingly frequent and finally, the tendency to spontaneous recovery is, if anything, less marked than in adult life. It follows that a conservative attitude is not justifiable and that operative treatment should more frequently be resorted to.

As regards the indication for operative treatment, acute and chronic cases must, of course, be separately considered.

He lays stress upon the wide diversity of opinion which exists among surgeons and physicians as to the indication for early operations in appendicitis. A glance at the immense accumulation of literature upon this subject shows that despite many contradictory statements the salient fact remains, that a large percentage of persons suffering from appendicitis, die.

He accentuates the importance of three cardinal symptoms in the early diagnosis of appendicitis: (1) spontaneous pain; (2) hyperesthesia (tenderness on pressure); (3) muscle spasm. These symptoms taken together make a positive diagnosis possible in the great majority of cases. He expresses surprise that muscle spasm, the importance of which symptom has long been insisted upon in America, and, to some extent, in French literature, should have been practically ignored in European literature.

Intestinal Antiseptics and Disinfectants in the Treatment of Infantile Gastro-enteric Diseases. A Critical Study.

Mya (Riv. di Clin. Pediatr.) shows that the antiseptic treatment of gastroenteric diseases in children is not based on scientific principles, and that it may do more harm than good in some cases. The writer believes that the treatment of these conditions demands not merely the writing of prescriptions, but proper attention to all the conditions which enter as causes of infantile diorrhoeas. Bouchard's theory of auto-intoxication, which was the basis of the modern intestinal antiseptic treatment, is not founded on scientific principles, and has never been fully demonstrated clinically. The trouble lies in the fact that this theory applies the principles of toxicology

to a totally different branch of knowledge —pathology. He is convinced that the small amounts of indol, skatol, etc., which are found in the urine and in the feces, if mixed with a healthy man's food would produce in him about the same effect as the fly in Æsop's fable. Clinical experience teaches that the process of intestinal putrefaction is far more complex than Bouchard would have it, and that we know as yet but very little on the subject of autointoxication. The use of intestinal antiseptics and antiputrefactive remedies is irrational, because it has never been proved that the symptoms which we wish to relieve are due to an excess of putrefaction of fermentation. It is irrational because no dose which therapeutically can be borne can be hoped to influence the overproduction of fermentative products, so-called. Finally, the use of these remedies is irrational because, when they are given in sufficient doses, they may actually do harm. He reports several cases of this kind, including a case of poisoning due to the injection of resorcin solutions into the intestine in a child. He, therefore, rejects all antiseptics in the treatment of gastroenteritis in children, with the exception of the use of 1 per cent. tannic acid injections.

Diagnosis and Therapy of Renal Tuberculosis.

Casper (Deutsche med. Wochenschr.) says that the clinical methods by which it has become possible not only to make with certainty the diagnosis of renal tuberculosis, but also to determine whether the disease is bilateral or unilateral and, if the latter, which side is involved, are of comparatively recent date. Every case of renal tuberculosis begins unilaterally, and spreads to the bladder and to the other kidney only after the lapse of time. If diagnosed while still unilateral, a nephrectomy may result in a radical cure, and this explains the great interest now taken in the early diagnosis of this disease.

The subjective symptoms, such as pain on urination, frequent micturition, pain and tenderness in the region of the kidneys are singly of little diagnostic value, since they occur in other lesions of the urinary apparatus. The same may be said of attacks of renal colic which may result from ureteral obstruction due to any cause, whether stone, cheesy masses or kinking of the ureter. Nor is the general appearance or the subjective feeling of the patient of importance. An individual with well-marked renal tuberculosis may appear and feel himself to be in perfect health.

Of the objective signs the condition of the urine is of chief importance. It contains pus, macroscopic or microscopic blood, casts, albumen, epithelium. All these constituents, however, occur in other conditions and may be missing in tuberculosis. Pus cells alone are hardly ever entirely absent. The only pathognomonic sign is the finding of tubercle bacilli, which according to Casper may be found in 80 per cent. of these cases. Those cases, however, in which in spite of careful search no tubercle bacilli can be found are of especial diagnostic difficulty. In such cases it must be remembered that the absence of all bacteria in a pus urine is a very suspicious sign. Tuberculous urine, containing no tubercle bacilli, is characterized by the absence of all other micro-organisms. This is similar to the findings in pleuritic effusions: those in which the fluid contains neither tubercle bacilli nor other bacteria, are usually of tuberculous origin. Such a sterile purulent urine should therefore make one suspect renal tuberculosis, and should lead to the making of cultures and to the inoculation of animals.

The former has been worked out by Suter. He found that if urine obtained in a sterile manner by means of a catheter be spread on ordinary culture media, a growth of one or more bacteria is always obtained in ordinary pyogenic infections. In tuberculous urines, on the other hand, there is usually no growth since tubercle bacilli do not multiply on the ordinary media, and such a negative result obtained with a purulent urine speaks for the diagnosis of urinary tuberculosis. On the other hand, mixed infections are not very rare, so that a tuberculous condition may be present even where the culture shows the growth of pyogenic micro-organisms.

Entirely trustworthy results can only be obtained by means of animal inoculation. He recommends the following method originated by Belgard. A number of guinea-pigs are each given an injection of 0.5 g. of Koch's tuberculin T. R. If they are tuberculous this is an absolutely fatal dose, so that the survivors may be positively known to be free from tuberculosis. One of the latter is given the washed urinary sediment suspended in a few drops of sterile water intraperitoneally, another is given the same amount under the skin. If the urine contains tubercle bacilli the latter animal will, after three or four weeks, have palpable, often broken-down glands near the fore or hind legs, according to the site of the injection. The guinea-pig, inoculated intraperitoneally, should be killed after six weeks. It will be found to have a miliary tuberculosis. If both animals are free from tuberculosis, the urine positively contained no tubercle bacilli, and it may be stated

with certainty that the pyuria is not due to a tuberculous infection.

Having established the tuberculous nature of the case, it next becomes necessary to decide which kidney is involved. To a certain extent the patient's subjective sensations may help us here. Pain may be entirely absent, but if present it is, unlike the pain of kidney stone, always referred to the affected side. The palpation of the kidney, too, is of great importance and often gives significant information. Nevertheless, its value can easily be overestimated. Not only cannot the kidneys always be felt, but an enlarged kidney need by no means be diseased. He has recently seen two cases in which the tuberculous kidney was small, whereas the other healthy kidney was enlarged on account of a compensatory hypertrophy. Neither will the cystoscopic examination of the ureteral papillæ give us decisive information regarding the side affected. The only certain method in ureteral catheterization, whereby the urine of each kidney can be collected separately and examined. Such an examination will not only show beyond doubt which side is diseased, but by means of a comparison of the area, the freezing point and the glycosuria (after phloridzin injection) of the two urines will give us much information as to the ability of the healthy or less profoundly diseased kidney to fulfill the uropoetic function of both.

The Operative Treatment of Ruptures in the Quadriceps Extensor Muscle Above the Kneecap.

Quenu and Duval (Revue de Chir.) have collected nineteen of these cases from the literature, to which they have added three of their own, and they are heartily in favor of operative treatment for the condition on account of the excellent prognosis assured, while, on the other hand, not much can be said in commendation of an expectant therapy. The amount of tearing has varied naturally in different cases, but a complete rupture is more common than any other variety. Involvement of the joint is common, as evinced by the fact that hemorrhage into the joint cavity is usually an accompaniment of the lesion. The amount of separation between the parts, of course, varies greatly, as it does in fractures of the patella, which is in reality the same kind of an injury. Double ruptures have been observed, Walker having reported six cases of this kind. In the twenty-two cases reported there was no mortality and not a single bad functional result. The method of suture preferred by the authors is very similar to that employed where a wire loop is placed around the edge of the patella. This is known as a transverse suture as opposed to the ordinary multiple vertical variety. The deep transverse fibres in the muscles and tendons of this part prevent a transverse suture pulling through. In fact, the authors state that a pull of forty pounds will not loosen such a suture. Silver wire has most commonly been used by them.

Antityphoid Inoculation.

Smith (Journal of Tropical Medicine) says:

"(1) Antityphoid inoculation has a distinct value in protecting the human organism from attacks of typhoid fever.

(2) To obtain the fullest measure of protection the operation should be done, say two months before exposure to infection.

(3) Even when inoculation is performed shortly before exposure to infection, it is a beneficial procedure on the whole.

(4) The protective influence is exerted for some years, long enough probably to tide over the most vulnerable age of youth and earlier manhood.

(5) The protection afforded is in the proportion of 3 to 1.

(6) The proportion of protection is much less than that of efficient vaccination for small-pox.

(7) Vaccination against small-pox is about ten times as effective as antityphoid inoculation.

(8) Typhoid under normal conditions at home and in some foreign stations is not a very common disease such as small-pox used to be.

(9) Typhoid among soldiers—on active service in most places, and when on peace service abroad, especially in India, South Africa, Egypt, Bermuda, Mauritius and Malta—is a very common and fatal disorder.

(10) Typhoid is a danger to which nurses and hospital subordinates generally are specially exposed.

CONCLUSIONS.

The *final conclusions come to as regards the practical value of antityphoid inoculation* are:—

(1) That it is not at present of sufficient practical value to warrant its general adoption by the nation at large.

(2) That it is of distinct practical value to any community in which typhoid breaks out in an epidemic form.

(3) That it is of practical value to those who have much to do with typhoid patients.

(4) That it is of utility for general adoption among new-comers in certain special endemic areas abroad, such as some Indian stations and Malta.

(5) That it is of great practical value at all times to soldiers serving in India, South Africa, and Malta; also, but in a less

marked degree, in Gibraltar and other places.

(6) That it is certainly of the greatest practical value to soldiers about to take the field in any tropical or subtropical country where typhoid is known to prevail.

To this last the writer would add that he believes typhoid would be an important factor to be reckoned with also in a campaign at home or in any European country, though we have not had recent experience to guide us in this matter. He is therefore of opinion that antityphoid inoculation is of practical value to armies about to take the field in Europe."

New Physical Signs in Diseases of Chest.

Grober (Deutsch. Arch. f. klin. Med.) says that is is but little known that difference in the size of the pupils is a common symptom of apex tuberculosis. The pupil of the affected side is generally wider since the sympathetic nerve is irritated by the inflamed pleura. Another valuable sign is the behavior of the veins of the chest if an expiratory effort is made with closed glottis as in Valsalva's method. Normally the vessels on both side swell equally, but with tumors, aneurisms, etc., the veins which are affected by the compression, will be more prominent. Normally, the pupils will contract somewhat during expiration and dilate slightly with inspiration; with valsalva's method, there will be a gradual, slight dilatation during the deep inspiration preceding the expiratory effort and a gradual, slight contraction during the latter. The following variations occur: (1) Only one pupil will show the normal contraction; the other will dilate. On the side of the latter, pathological lesions of definite localization will be found in the thorax. (2) If both pupils dilate instead of contracting during forced expiration, the disease is bilateral. (3) If there is a difference in the size of the pupils during normal respiration and the dilated pupil widens still more during Valsalva's experiment, while the contracted one will become normal, intrathoracic disease on the side of the wide pupil is probable. (4) If the pupils differ in size with quiet respiration but dilate with Valsalva's method, bilateral intrathoracic affection is probable. If the smaller pupil becomes equal in size or larger than the second one, the disease probably also affects both sides, if local disease or organic disease of the nervous system can be excluded. Absence of all these phenomena does not argue against intrathoracic disease. The percussion note obtained over the manubrium sterni is also of the greatest value. In real or inflammatory tumors of the mediastinum there will often be dulness with closed mouth and dull tympany with open mouth, or full tympany with closed mouth and Wintrich's change of percussion with open mouth. If the posterior mediastinum is chiefly affected, the note will be purely tympanitic with closed mouth; with distinct Wintrich's change on opening the mouth.

Syphilis of the Liver in the Diagnosis of Abdominal Tumors.

Konig (Berl. klin. Woch.) reports three cases who suffered from attacks of pain in the hepatic region, but who presented no evidences of functional liver disturbances. no loss of appetite or weight. In each instance a diagnosis of hepatic tumor was made, and in one case a movable mass was made out, which was believed to be connected with either the liver or the kidney. An exploratory laparotomy showed that the tumor was a lobe of the liver, which, together with the rest of the organ, was covered with grayish nodules. As the liver and stomach were adherent, it was assumed that a carcinoma of the stomach furnished the primary focus for the supposed multiple metastatic deposits in the liver. After the patient recovered from the operation, a treatment with mercury and the iodides was instituted and all the symptoms, including the tumor, disappeared. No history of syphilis could be elicited. Similar conditions were found in the other two cases, in which operation had also been done for the relief of symptoms. Impressed by the importance of this subject, the author made some further studies, and now believes that the leutic growths of the liver may be divided into two classes—the first consisting of flat, hard, irregular swellings on the surface of the organ and within the percussion boundaries; and the second, of masses apparently separated from the liver, which are often movable, nodular, round or kidney-shaped, attached to the viscus by a pedicle and representing a large portion of the same. The question of operation in these cases is a very important one. Where the least doubt exists, a mercurial treatment may be tried, although it must not be forgotten that in isolated cases no results are obtained. Moreover, in one of the author's cases, no effect was secured with mercurials before operation, but a very pronounced one followed the employment of the same means after laparotomy. There may be circumstances which urge operation and the dictum, "do not operate because the condition is due to lues," should not be overdone. In the one case which the author reports it was certainly justifiable to remove the pedunculated growth, and he concludes with the statement that where an exploratory celiotomy reveals the presence of syphilitic disease,

any removal of affected tissues must be entirely governed by the findings in each individual case.

Treatment of Haemoptysis.

Hochhang (Deutsch. med. Wchschr.) suggests the following points in the smaller hæmorrhages of early pulmonary tuberculosis, the patient is to be put to bed, forbidden to speak, and given nourishment and liquids in the form of cold drinks—in the first few hours preferably cracked ice. An ice-bag should be placed on the side of the chest on which the lesion is suspected, or, if this cannot be located, on the heart; the author is emphatic in his belief that the reflex effect of cold so applied is of distinct value. Internal styptics he also believes to be of positive value; among these, common salt given in dessertspoonful doses in the least possible quantity of water, ext. hydrastis canaden. ten to twenty drops, or lead acetate in half-grain doses—these given every two hours—also, ol. terebinthinæ gr. v. in capsules four or five times in twenty-four hours. Opium or morphine should be used less frequently than is the case; the indication for its use is a frequent explosive, irritative cough which promotes bleeding; a moderate cough which serves only to expel the blood in the bronchi should not be interfered with. The patient should be kept in bed for several days after the hæmorrhage has ceased, and then treatment of the essential condition taken up.

In the more serious hæmorrhages of the later stages of tuberculosis the same preliminary measures of rest, etc., should be taken, and in addition, certain chemical and physical measures. Most efficient of the chemical means is the subcutaneous infusion of gelatin which the author employs in ten per cent. solution as supplied in aseptic vials by Merck, using 40 c.c. at a dose. Other measures consist in the hypodermic use of ergotine and adrenalin (?) Of the mechanical measures, two are of special value: (1) The application of a tourniquet to one thigh with sufficient pressure to obstruct the return of venous blood, but not sufficient to interfere with the arterial flow; and, (2) the stopping of the affected side of the chest, thereby putting it at rest. As a last resort in cases in which the hæmorrhage may, with reasonable certainty, be locating in a superficial cavity, the overlying portion of the ribs in contact with the cavity may be removed in the hope that the cavity will collapse and allow the arteries involved to retract.

Under What Conditions Shall Mothers with Albuminuria be Allowed to Nurse Their Infants?

Cozzolino (Riv. di Clin. Pediatr.) brings up the question as to whether an albuminuric mother should be allowed to nurse her child. Pinard, Budin and their school maintain that it is safe to allow such mothers to nurse their infants, but the author does not think that their statistics form a trustworthy basis for conclusions in this matter. The institutions with which these observers are connected are lying-in asylums in which the infants are not observed for any length of time. On the other hand, a number of cases are on record in which infants who have been nursed by albuminuric mothers have been under observation for a long time, and developed eclampsia, tetany, epiglottic spasm, or fatal hepatitis with jaundice. In one case, observed by the author himself, there was a diffuse edema as the result of nursing from a mother who had been suffering from what apparently was a simple and transient albuminuria. All these cases show that the milk of such mothers may prove toxic for the infants, and that we should be very careful, at all events, how we allow such mothers to nurse their infants. At the first sign of any disturbances on the part of the nursing, the milk should be discontinued, and whenever the mother shows the presence of true Bright's disease the infant should be permanently weaned.

The Treatment of Congenital Talipes Equinovarus.

Dylion (Arch. de Med. des Enf.) says that much has been written upon the subject of club foot, but the writer believes that the bloodless method of treatment is steadily gaining in favor.

Having completely cured several complicated cases of club-foot by manipulation alone, the author draws the following conclusions from her results:

(1) By methodical manipulation congenital talipes equinovarus may be completely corrected.

(2) If the result proves to be unsatisfactory it is proof that the method was faultily applied, or that it was not continued long enough.

(3) The treatment should not be regarded as auxiliary, but as the principal and exclusive method.

(4) By manipulation one restores the normal form as well as the function of the member.

(5) Correction of the position having been obtained, the treatment should be continued for a time in order to prevent recurrence.

(6) In the intervals of treatment the foot should be supported by a small splint.

(7) It is desirable to begin treatment as soon after birth as possible.

The Reflexes in Hysteria.

Broca (British Medical Journal) after a careful study of 100 cases of hysteria chosen from among the more typical draws the following conclusions: (1) Abolition of the pharyngeal reflex is frequent, especially in the forms accompanied by anesthesia, less often in hysterical fits, still less in paralyses and contractures. This sign is found in many other affections, and even normally, and is therefore of little diagnostic value in hysteria. (2) Exaggeration of the tendon reflexes is more frequent than abolition of the pharyngeal reflex, and is a sign at least as important as the latter. It is very frequent in hysterical seizures, less constant in paralyses and contractures, still less in anesthetic cases. It is, however, found in many toxic conditions, and even normally, and so has no pathognomonic value. (3) Abolition of plantar sensibility is frequent in hysteria, especially in the forms with anesthesia, then in paralyses, and lastly in convulsions. (4) Simultaneous abolition of cortical plantar reflex or reflex type, and of medullary or fascia lata type, is very frequent, most in anesthetic cases, a little less often in paralyses, contractures, and convulsions. This sign the author terms the *phenomene plantaire* combine. These two reflexes are remarkably constant in the normal state; their abolition has considerable importance in the diagnosis of hysteria, of which it may be regarded as a special sign. (5) Plantar anesthesia is not necessarily present with the combined plantar phenomenon; it may coexist, but the latter may be present without alteration of sensation. (6) The deep plantar reflex is often exaggerated in hysteria, but it may be normal, feeble, or abolished. (7) The abdominal reflex shows inconstant variations; most often it is normal, but may be abolished, exaggerated, or feeble. (8) Ankle clonus is not very rare, patellar clonus is less frequent, and wrist clonus the author has not seen in these cases. Ankle clonus is especially frequent in the paralytic forms, less common in the others. Patellar clonus is also most frequent in the paralyses and contractures, very rare in convulsions, and never seen in anesthesias. (9) He has never seen true Babinski's reflex in typical cases, but in eight cases there was *le signe de l'eventail*; the latter sign, therefore, has not the same clinical importance as the extensor reflex.

The Diagnosis of Perforated Duodenal Ulcer.

Clogg (British Medical Journal) states that a perforated duodenal ulcer has only on rare occasions been diagnosed. Symptoms of perforative peritonitis occurring in a person in previous good health, particularly a male subject between thirty and fifty years of age, the early symptoms being marked in the upper region of the abdomen, should excite a suspicion of duodenal perforation.

Should these symptoms occur in a person who has previously complained of gastric disturbance, however vague it may be, the suspicion is greater. In the very acute perforating duodenal ulcers the differential diagnosis from gastric perforation will be impossible. Gastric ulcers generally perforate in young anemic women; duodenal ulcers in men between thirty and fifty. But this is by no means constant.

Symptoms of acute perforative peritonitis of epigastric origin and spreading down to the right iliac fossa, simulating an acute appendicitis, are frequently seen in duodenal perforation, but very infrequently in gastric perforation. In these cases it can generally be noticed that the early signs are referred to the upper abdomen; the iliac fossa is only secondarily involved. Rigidity at first is in the hypochondriac region, and only later in the iliac region. The initial shock is more intense generally in acute perforative appendicitis, and septic poisoning is seen earlier in the history of the case.

An acute appendicitis may travel from the iliac fossa to the right hypochondriac region, and thus simulate a duodenal perforation. The earliest signs here are in the right iliac region and only secondarily located in the hypochondrium. The similarity of duodenal perforation to acute appendicitis must be borne in mind, and by attention to the onset, the early site of pain, the area of rigidity, and the initial higher fever in appendicitis, a correct diagnosis will generally be arrived at.

The occurrence or not of hematemesis or melena should be inquired into. A previous history of melena only suggests a duodenal perforation.

It is easier to exclude other causes of perforative peritonitis than a duodenal ulcer, and by exclusion a perforated duodenal ulcer ought to be more frequently diagnosed.

Spontaneous Rupture of the Heart in Infants.

Schaps (Arch. f. Kinderheilk.) states that the most prominent cause of cardiac rupture is arteriosclerosis, but in this case it was a septic embolus that lodged in the heart muscle. This case is of considerable interest, as it furnishes a new cause to that long list of causes of sudden death in infants. A child of four months was brought to the hospital, badly nourished and presenting small, discrete, subcutaneous abscesses in the back, head and extremities; there was a maculopapular exanthem, the

bridge of the nose was depressed, the child had snuffles and excoriations about the nose. The spleen and liver were enlarged, and there were small papules about the arms. A swelling of the lower end of the left forearm proved on radioscopy to be a swelling of the epiphysis of the radius. The case was clearly one of congenital syphilis, and was given inunctions of one-half gram of ung. cin. pro. die, and was nourished by means of expressed woman's milk. Four days later there occurred a sudden rise of temperature. The next day a few fine rales were heard over the pericardium, and in the afternoon, one-half hour after feeding, the child died suddenly. At autopsy the pericardium was found filled with thin blood and dark necrotic fragments. There was a fibrinous exudate over the pericardium. In the middle of the left ventricle there was a perforation 3 mm. in diameter, in the neighborhood of which the heart muscle was soft and friable. Here was an abscess ½ cm. long in the wall of the left ventricle, sharply circumscribed, dark red in the periphery and yellow in the center. There was also a small abscess near the apex of the heart. Microscopical examination showed that the muscle in the neighborhood of the rent was quite necrotic and the nuclei did not take up the stain. Staphylococci were found. The case was one of staphylococcus sepsis (independent of lues), originating in the subcutaneous abscesses. The frequent occurrence of septic processes in infants originating like the above must be borne in mind.

The Physiological Differentiation of Pneumococcus and Streptococcus.

P. H. Hiss, Jr. (Jour. of Exper. Med.) says that well-marked capsules may occur on organisms which have with reason been classified as streptococci. The author's experiments show well-marked differences between the metabolic activities of pneumococci and streptococci, which may prove useful in the differentiation of these organisms. These differences become apparent when the pneumococci and streptococci are cultivatad in an alkaline serum medium, or in a serum medium to which the carbohydrate inulin has been added. Pneumococci slowly produce acid in the alkaline serum. They ferment the inulin and thus rapidly give rise to acid. Streptococci do not form appreciable acid in either of these media, nor do they ferment the inulin. The pneumococci coagulate the serum of these media while the streptococci do not. Starch and glycogen media are coagulated by pneumococci and by some at least of the streptococic. Lactose, saccharose, and maltose are fermented by pneumococci with the production of acid. Certain members of the *Streptococcus pyogenes* also ferment these disaccharids. In serum media especially starch-bouillon serum, sterilized at 68 deg. C., pneumococci usually develop well-marked capsules. In some of the serum media streptococcus cultures may at times have demonstrated capsules. All the streptococci classified as streptococci have been found to posses capsules. The same stains are applicable to the demonstration of pneumococcus capsules.

Treatment of Gastro-enteritis with Buttermilk.

Decherf (Arch. de Med. des Enfants) says that buttermilk is generally well taken by infants, who prefer it to sweetened boiled water. Its use was followed by good results, while in parallel cases, treated by other means, no improvement was observed, while acting in these cases as a specific, buttermilk is also a food and causes an increase in weight. It is indicated in both chronic and acute cases. It produces excellent results in rickets; it combats the intestinal fermentations which give rise to chronic auto-infection. Some practitioners have administered the buttermilk raw, but the majority who have used it prefer to give it boiled. The following is the method of preparing the buttermilk: One tablespoonful of farina to a liter of buttermilk, which is then slowly boiled in an enamelled or porcelain vessel, at the same time that it is constantly stirred. The mixture is kept boiling for several minutes, at the end of which 75 grams of sugar are added. It is then ready to be fed to the infant, either in the bottle or with the spoon or cup. In cases of either acute or chronic gastro-enteritis, it is given in the same doses as milk, every three hours. In the beginning it is best to give it in fractional doses of a tablespoonful every fifteen minutes. Although during the first few days the child may vomit after taking the buttermilk, the stomach soon gets used to this acid food. In children over a year old, sometimes large doses are necessary. The good effects of buttermilk are to be attributed to the large amount of lactic acid present, which counteracts intestinal fermentation. The small amount of fat contained, and the fine division of the casein, thanks to churning, render the preparation very digestible.

Operations for Diseases of the Uterus and Solid Ovarian Tumors.

Swain (Brit. Med. Journal) reviews in this article the last 50 of his operations for diseases of the uterus and solid tumors of the ovary in order to lay down indications for operative and non-operative cases. Seven of the cases were solid ovarian tumors which simulated myofibromata. Of the remaining 43 cases, 31 were operated upon for uterine myofibromata, six for uterine

cancer, and five were cases of hysteropexy. The operative results for cancer were bad. In five out of every six cases the disease has usually reached such an advanced stage that operation must be refused. The author prefers vaginal hysterectomy as the operation of choice.

In doing hysteropexy the anterior upper surface (and not the posterior) are attached to the abdominal wall. Of the 31 cases of hysterectomy for myofibromata, 21 were treated by supra-vaginal division of the cervix, two by panhysterectomy, and nine by myomectomy. The mere presence of a tumor is no indication for operation. The surgeon must first feel satisfied that it is either dangerous to life or that it produces so much discomfort as to render existence more or less intolerable. Still, the mere size of the uterus or the rapidity of growth of the tumor may be sufficiently prominent as conditions justifying operation. Among the symptoms demanding intervention he alludes to hemorrhages, and pain as the chief ones. Chronic invalidism and pressure symptoms at times give the indications for operation. Raising up the uterus or curettage may at times be resorted to as palliative measures.

When complicated by pregnancy, operation may be required before the child is viable, because of excessive pain or rapid growth; and in some cases the myofibroma may be shelled out without interfering with the normal course of pregnancy. If the patient has gone to term it is better to do Cesarean section and then proceed to the removal of the myofibromatous uterus.

Removal of Lymphatics In Cases of Malignant Disease of the Tongue.

Butlin (British Medical Journal) advocates the complete removal of all lymphatic structures in the interior triangle of the neck in cases of carcinoma of the tongue. The writer mentions the anatomic arrangement of the glands in this region, but inasmuch as we cannot rely only upon one group of glands being affected by cancer of a particular part of the tongue, the entire lymphatic structure of this general region must be removed in all cases. The operation is performed by making an incision from the mastoid process to the sterno-clavicular joint. Then another incision is made from the symphysis menti, across the side of the neck to meet the first incision about the upper border of the thyroid cartilage. These flaps include skin alone. The dissection begins at the lowest part of the incision and removes all structures in the triangle, leaving only the large vessels. The internal jugular vein is sometimes removed along with the other structures. The wound is closed with gauze and tube drainage. Inasmuch as the parotid gland is often cut in the course of this operation, there is often a flow of saliva from the wound for a few days, but this never results in a salivary fistula. He believes in an operation in two sittings—the operation upon the tongue, then as soon as the patient is fit for the second operation and before he leaves the hospital, usually about the end of nine days, the operation upon the neck is performed.

He presents statics which argue strongly for procedure. The best results have been attained when enlargement in the neck was very small or imperceptible. The author advocates removal of the submaxillary gland in all cases.

Treatment of Snake Bite by Permanganate of Potash.

Robers in the Indian Medical Gazette describes five cases of snake bite successfully treated by the local application of permanganate of potash. The patients were bitten by highly poisonous snakes, and the wounds were in several cases primarily treated by a tightly applied ligature. The cases in addition were treated by incision with a local application of permanganate of potash with resulting recovery. In commenting on this treatment the author alludes to a series of experiments which he has been making on methods of treating snake bites. He states that under ordinary circumstances the amount of poison injected into the wound by a cobra is quite sufficient to be fatal. Ordinarily the amount of poison obtained from freshly caught cobras is equal to ten times a fatal dose.

The treatment consists essentially in a free incision at the site of the wound, followed by an application of a small amount of crystals of permanganate of potash moistened with water. Undoubtedly the rapidity with which such treatment may be applied after the receipt of the injury is the important element in its success. In the cases reported the dissemination of the poison was prevented by ligatures in several instances, and the radical surgical treatment of snake bite in India is apparent, when one considers the great number of deaths resulting yearly from this cause.

The Influence of Roentgen Rays on the Internal Organs.

Heineke's (Ref. Jour. of the Amer. Med. Asso.) research on mice, rabbits, guineapigs, and dogs, has confirmed the statements of others in regard to the action of the Roentgen rays on the internal organs. The effect observed is entirely independent of that noted on the skin. With the exception of the testicles, the deep action of the Roentgen rays seems to be exclusively restricted to the organs concerned in the mak-

ing of blood. The action is manifested in two ways: in the annihilation of the lymphoid tissue, and in the destruction of the cells of the bone marrow and spleen pulp. This reaction of the lymphoid tissue is specific. It occurs long before any other organ or sytem of organs show any changes from the exposure, and dosage can be calculated to limit the action of the rays to this tissue alone. The reaction is further distinguished by the lack of any latent stage, by its sudden onset, its stormy course, its early termination, the absence of any after-effects, and by the rapid restriction of what has been destroyed. In all these points the reaction is direcily the reverse of what is observed in regard to the action of the Roentgen rays on other material. This destruction of the lymphocytes must always be reckoned with as an inevitable accompaniment of any exposure. It does not seem to entail any undesired or dangerous by-effects.

Esophageal Stricture Treated with Thiosinamin.

Dr. Israi (Pester Med. Presse) reports nine cases treated by the administration of thiosinamin for stricture of the esophagus. This drug is easily soluble in alcohol but little in water. The author administered it by hypodermic injection, using a 10 to 15% solution in alcohol and water or one made with glycerin.

The drug has been successfully used to soften and resolve the connective tissue thickenings of rhinoscleroma, pleurisy, post-syphilitic and lupus lesions, and in valvular heart affections of similar type. Its use is contra-indicated during acute and sub-acute inflammatory processes.

In one of his cases recovery followed the use of this drug, without other aid, but on the others it was necessary to use a bougie for dilatation from time to time. The writer says that after the exhibition of the drug these measures became much less difficult and were required infrequently as compared with the condition before using the thiosinamin.

Injections were made twice a week, and no ill effects of any kind were observed in any of the cases.

He believes the drug has been credited with more virtue as a connective-tissue resolvent than it deserves, but insists that a marked degree of usefulness as a help in such cases should still be credited to it.

Some help may also be got in such cases from careful examination of the part with Killian esophagus tubes.

Cryptogenetic Fever.

Bozzolo (Wien. klin. Therap. Woch.) says: (1) Fevers where the origin can only be detected at autopsy. The most common example of this class is endocarditis ulcerosa. (2) Fevers whose cause is detected during life, though late. This interesting group includes the recurrent rises of temperature so common with leucemic and pseudoleucemic glandular enlargements. The focus may be extremely small as in prostatic abscesses after gonorrhea or intra-urethral manipulation. Obscure abscesses may also form about the anus, and the antrum of Highmore should not be overlooked as possible source. The possibility of a chronic septic endocarditis or of a pyelitis in young subjects should not be forgotten. (3) There is a special form of glandular fever, suggesting a tubercuious fever and accompanied only by glandular swelling. Occasionally, hypertrophic tonsils will give rise to fever which disappears when the tonsils are removed. (4) Another type of fever may be termed "precarcinomatous." The tumor (generally carcinoma, more rarely sarcoma) may not yet be evident, especially when it develops in the deeper part of the abdomen. The curve is often intermittent, suggesting malaria. Carcinomata of the stomach, liver, ovaries, uterus and mediastinum most frequently run with fever. In one case observed by the author, a specific germ could be isolated, both from the tumor and the circulating blood. (5) Very frequently, tertiary syphilitic manifestations will be responsible for an obscure fever. The type is generally quotidion, intermittent and irregular, without very high rises, and long periods of apyrexia may be interposed. Antisyphilitic treatment is very prompt in its action. (6) Nervous and hysterical fevers are characterized by great irregularity both as far as height and duration are concerned. The highest temperatures on record are recorded in hysteria, but the fever is rarely distributed uniformly over the body. (7) The last group, cryptogenetic fever proper, includes all forms of bacteremia or septicemia with late localization, which are generally cleared up by a bacteriological examination of the blood. The course is usually acute but may also be so chronic as to suggest a malignant tumor somewhere in the body. This class may be again subdivided, according to the germ found in the circulating blood, as follows: (*a*) in pure *Streptococcus mycosis* there is an irregular, intermittent course, with moderate fluctuations, but exceptions are common. A regular, continuous fever is, however, rare; (*b*) staphylococci generally give rise to a continuous or slightly remittant fever; (*c*) pneumococci behave like staphylococci; (*d*) *Bacterium coli* and the gonococcus generally cause an exquisitely intermittent fever, with rapid rise and falls; (*e*)

mixed infections also give rise to an intermittent curve. These rules only apply in a general way, since the amount of bacteria and their localization also play a prominent role. In simple bacteremia without localization, the type is continuous or remittant, while in puerperal sepsis with numerous metastatic abscesses or in ulcerating endocarditis, the type is more intermittent. Occasionally a sepsis may follow an infectious disease and need not necessarily be caused by the same germ as the infectious disease. He has observed streptococci, staphylococci and diplococci in the blood after typhoid, and in one rare case diplococci and staphylococci were isolated during different periods. The therapy of sepsis is as yet in its infancy, and it is to be hoped that ere long serum-therapy will advance so that a remedy will be at hand for every case. Little can be expected from quinine or the endivenous application of sublimates, but collorgol is sometimes followed by good results.

Iodoform Bone Plugging.

Moorhof and Jones (The London Lancet) in an extensive monograph on the subject, report as follows: The mixture consists of 60 parts of the finest pulverized iodoform and 40 parts each of spermaceti and oil of sesame, a compound which at the ordinary temperature of a room forms a stiff yellow mass; at 15 deg. C. it becomes fluid, and on allowing it to stand, the oily constituents rise and the iodoform sinks. It must therefore be well shaken before using. They began their researches on bone cavities five years ago. They then used an iodoform paste of the consistency of putty. They soon discovered, however, that hermetic sealing of the cavity, the desired result was to be obtained only by pouring in a thoroughly fluid mass. This mass must adhere to every portion of the wall filling every fissure and interstice. To accomplish this, the cavity must obviously be entirely dry and should be treated precisely as though it were occurring and being treated in a tooth. This implies that the part must be made not only as aseptic as possible, but practically dry. Silbermack has contrived a very simple apparatus by means of which sterile, cold, dry air can be blown in. The air is carried through a formalin solution and then through calcium chloride. When the walls are free from moisture, they appear dull. If electrical power is available, drills run by motor are preferable to any operated by hand power, although this is not a necessary part of the technic. The plugging material should be poured in slowly and for well plugged cavities, no special drainage is required for they neither bleed nor discharge. A small amount of lymph may be secreted by the soft parts, but if no sinuses are present, it is sufficient to depend on rather wide stitching of the wounds for drainage. The secretions are invariably of a lymphoid character, being obtained almost entirely from the divided lymphatics. It is interesting to note that here as else. where in the case of paraffin and other materials introduced into the tissues, the filling has but a relatively short life in the cavity. It stimulates granulation tissue very actively and may be dressed out by the growth of this from below. Even more fortuitous is the absorption of the mass by phagocytic action, occurring after primary union of the soft parts. This process may be demonstrated in two ways. It may be seen under the X-ray, for iodoform throws an excellent shadow, or it may be determined by the amount of iodine reaction in the urine. This iodine is absorbed very slowly and there can therefore be no danger of intoxication or iodoform poisoning even in the case of very large cavities. The production and gradual growth of bone tissue are effected by a primary formation of new connective tissue. Later the lime salts are deposited. The bone thus formed has been derived from the granulation tissue and the process is not unlike that seen in callous formation. In connection with this, Silbermack has made extensive investigations with animals since the beginning of 1903, the results of which he will soon publish. The time which is required to complete the organization of the bone is very variable. It may take more than a year, or it may be accomplished in less than one-quarter that time. Moorhof, in 220 cases, has never seen any ill effects arising from the technic. The exploitation of the method has not been remedied to ordinary osteomyelitic cavities, it having been used freely and successfully in the treatment of tuberculous joints. It is obviously necessary that the freest possible incision should be made to gain access to the joint, and that it should be most thoroughly cleaned before any effort is made to use the wax. Successful operations have been performed upon the wrist-joint, the elbow, the shoulder, the ankle and the knee, and the hip-joint. They proceed according to the following rule, which is applied in all cases to children. They remove the cartilage piecemeal with a heavy knife and then proceed to cut out the affected bone. There is no advantage of sawing off thick slices, for this interferes immediately with the gait of the patient. A thorough scooping process and a getting of the part absolutely dry usually being much preferable. Further use of the material is found in face lesions, such as dental cysts and empyemata of the an-

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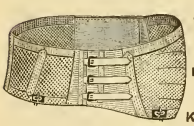

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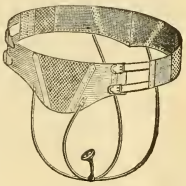

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trum of Highmore. Moorhof has also reported a case in which he plugged the mediastinum in a fourteen-year-old girl. There was present in the middle of the sternum an ulcer. The apices were not involved. On opening the chest, it was found that a cavity existed which required 200 grams to fill it. The results were extraordinary. The evening temperature ceased and the patient was outdoors on the seventh day. Dyspnea, however, occurred and could be relieved only by hypnotics. It was found furthermore that the air made its entrance and exit through the lower wound.

The Surgical Treatment of Cirrhosis of the Liver.

Gangee (Birmingham (England) Med. Rev.) According to the surgical treatment for cirrhosis of the liver may take the form of:

1. Paracentesis.
2. Laparotomy, followed by drainage of the peritoneal cavity.
3. Cholecystotomy.
4. Omentopexy, or Talma's operation.

Omentopexy seems to be the operation most generally made use of in France, and Monprofit gives the opinion that it is a comparatively safe operation, considering the gravity of the condition for the relief of which it is performed, and that its therapeutical results are good. This operator states that it is far more successful in cases of hypertrophic than of atrophic cirrhosis, and he called attention, too, to the fact that hypertrophic cirrhosis is much more amenable to ordinary medical treatment than is the atrophic variety. Monprofit says the operation results in cure of the ascites in 70 per cent. of cases of hypertrophic cirrhosis, and in 35 per cent. of cases of atrophic cirrhosis. But this favorable opinion was not shared by other speakers. Thus Willems said that he had done omentopexy in four cases of hepatic cirrhosis, with the result that one patient died, and in the three others the ascites reappeared. As opposed to the figures given, he quoted the German statistics, which give only ten really favorable results in 250 cases. Again Lejars stated that he had performed this operation three times, with a fatal result in each case. More favorable results, however, had attended the practice of Schwartz and of Bardesco, the former of whom had operated on five patients suffering from atrophic cirrhosis with ascites, with the result that two of the patients died, while in the other three instances a marked improvement took place. Bardesco has operated eight times, with the following results: Two patients died very soon after operation; one died three months after operation; in one case the ultimate result was unknown; while four of the patients were well and without any return of ascites at intervals, respectively, of 28, 23, 16 and 15 months after operation. As regards the indications for operation, opinions seemed to differ, but the general opinion was that the patient should be operated on when still in fair condition, and that the best time for operation is either as soon as ascites appear or as soon as it reappears after the first tapping. He says that on opening the abdomen, it is sometimes found impossible to go on with the operation owing to the puckering up of the omentum. At other times the omentum is found to be adherent to the anterior parietal peritoneum, and very large blood-vessels may be present in the adhesions, the operation thus appearing to have a correct physiological basis.

Bardesco describes his method of performing omentopexy: The abdomen is first tapped, and as much as possible of the ascitic fluid drawn off. An incision is then made from the xiphoid cartilage to the umbilicus, and the remainder of the fluid is mopped out. Next, at a distance of two fingers' breadth from each border of the wound, a vertical incision, eight to ten centimetres long, is made on the internal aspect of the abdominal wall, the lower ends of the incision being on a level with the umbilicus. These incisions go through to the anterior surface of the recti muscles, and through them the finger is passed, and the tissues stripped off the anterior surfaces of the recti. A piece of omentum is next passed through each incision into the pocket on the front of the rectus muscle, the omentum being stitched to the edge of the incision by means of interrupted catgut sutures.

Some of the speakers gave their experience of other operations in cases of cirrhosis. Thus, Jayle considers that in cases of cirrhosis with ascites, the abdomen should be tapped, and, if the fluid reaccumulates, laparotomy should be done. He quoted the case of a man from whom he drew a large quantity of ascitic fluid by tapping, and in whom the ascites never reappeared. Again, Delageniere found that temporary cholecystostomy gave excellent results in cases of hypertrophic cirrhosis, but that it was of no use in cases of atrophic cirrhosis. His favorable opinion of this treatment in the former class of cases was founded on an experience of six cases.

In my own practice, I have for years employed nuclein in every case of measles from the beginning, be the disease ever so slight. Under this regime a conspicuous amelioration of severe symptoms and a shortening of the eruptive stage will be noticed in most cases; preferably the tablets of protonuclein (R. & C.) are to be used, the dose being from 2 to 4 several times a day.

Index of Diseases, by G. Bjorkman, A. M., M.D., Merck's Archives, January 1905.

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Concerning the Demonstrable Changes in the Heart, and Pericarditis Following Attacks of Angina Pectoris.

Kering (Berliner klinische Wochenschrift) mentions the scarcity of references in the literature to the clinical findings which follow attacks of angina pectoris. These changes are of great significance, since they not only throw light upon the nature of the attack, and upon sudden deaths, but they also teach us how to care for one thus affected.

His three groups of cases, are based upon the physical findings. In the first group are included those cases in which an increased hypertrophy of the heart is found, together, with a slight febrile condition. The fever is usually due to myocarditic changes.

In the second group belong those cases in which gross changes take place under the very eyes of the observer. These usually consist of dilatations of portions of the heart and are also accompanied by slight fever. The writer mentions a case in which there occurred a dilatation of the left ventricle.

To the third group belong the cases in which an acute pericarditis follows immediately after the stenocardic attack. A series of cases of this group are reported here.

A fourth group might be added in which there are no demonstrable clinical changes at all, but in which the myocardium is involved. This is manifested by a temporary diminution of the urine, and the development of edema.

His observations leads him to the conclusion that patients who have had even slight attacks of angina pectoris should be kept in bed for days or weeks, as the occasion demands. The writer says that in this manner a sudden termination may be prevented or deferred for a considerable time.

Treatment of Port Wine Nevus by Radium Bromide.

Hartigan (Brit. Jour. Dermat) describes the case of a patient, a woman aged twenty-six, who was born with a large port wine nevus covering the left cheek and left side of the nose. It was a reddish color with slight purplish tinge, and near the margin of the orbit there were a few dilated vessels. The disfigurement was very marked. Having a personal experience of the dermatitis following the application of radium on the healthy skin and noticing its effects on diseased skin, the author was of the opinion that by prolonged reaction there could be produced an obliteration of the vessels, thus removing what has hitherto been regarded as an irremediable deformity. The specimens of radium used weighed ten grams each, and were of the highest known radioactivity. Usually within twenty-four hours erythema and a slight prickling sensation and vesicles appear. These drying up leave a scab, which falls off in a week or ten days, leaving behind it a thin, white skin. In this way the patient was treated, the applications extending over nine months, during which time she had thirty-nine exposures in all, varying in duration from one-half to one hour. The improvement was marked. At the date of the article there was comparatively little to be seen; with the exception of a few small untreated areas, the deformity has entirely disappeared. The condition that formerly existed cannot now be traced, and the result, in the opinion of the gentlemen who saw the case, was that "it was considered distinctly encouraging."

Treatment of Nevus by X-Rays.

Levack (Brit. Jour. Dermat.) describes three cases of nevus flammeus, in which treatment by the x-rays was adopted and gave successful results.

Case 1 was that of a girl aged eight years, with a large nevus occupying the left side of the face from the temple down to the upper lip. A patch one and a half inches in diameter was first treated, the rest of the face being protected. Daily sittings of ten minutes each were given. A 10-inch spark coil, worked from the accumulator, with a hammer-break interruptor and a soft tube, were used. After three weeks of this no reaction was obtained, so an electrolitic interrupter was substituted, and the current from the main employed so as to give 100

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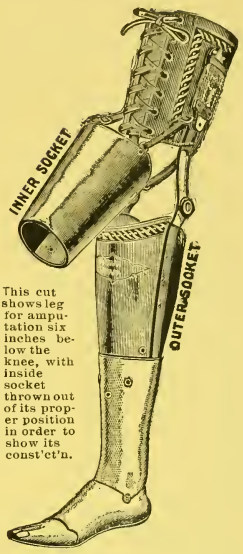

This cut shows leg for amputation six inches below the knee, with inside socket thrown out of its proper position in order to show its const'ct'n.

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volts and 7 amperes. Daily sittings of three minutes set up a violent reaction in a fortnight, with edema and vesication, and the skin peeled off. The raw, bleeding surface healed very slowly, and when the patient returned three months later the part was completely healed and free from nevus. The rest of the nevus was treated subsequently in the same fashion in two seances, and the result was equally satisfactory. The writer advises that the whole of the nevus should be treated at once, instead of piece-meal.

Case 2 was that of a woman aged thirty-eight years, who had a nevus on the left half of the upper lip, which extended in isolated spots on the naso-labial fold and the lower eyelid. The main portion was treated as above, and reaction produced as above in about six weeks, the outlying islands being treated by the electro-cautery. The result was satisfactory.

Case 3 was that of a woman aged fifty-four years, with a nevus about one and a half inches in diameter, situated on the left malar prominence, dusky red in color, and raised above the level of the surrounding skin. There was another patch on the right ala nasi, and one on the back of the left wrist. This was also successfully treated.

Seven Cases of Scorbutus in Infants.

Comby (Arch. de Med. des Enf.) states that he encountered 7 typical cases of the diseases. The histories of these cases are given.

Five patients were boys and two girls, aged respectively, seven months and a half, nine months, nine months and a half, ten months, eleven months, thirteen months, and nineteen months.

All the infants were artificially fed; in 5 cases Gartner or "maternized milk" was used, and in 2 cases sterilized milk of Val Brenue.

The disease occurred after five, six and eight months' use of the foods mentioned.

All the children had teeth, and all developed swelling of the gums, or simple ecchymoses, with stomatorrhagia. In all the cases the symptoms appeared after the cutting of the first teeth. Signs of rachitis were noted in most of the patients.

The chief symptom was painful pseudoparaplegia; this, together with subperiosteal hematomata, may be mistaken for acute articular rheumatism, a fracture, simple or specific osteitis, myelitis with paraplegia, Pott's disease, coxalgia, polyneuritis, etc.

Twice a marked cachexia was noted.

The diagnosis is made upon the presence of hemorrhagic germs, which are always found in children affiicted with scorbutus, who have teeth; subperiosteal hematomata, and painful pseudoparaplegia, together with hematomata are indicative. A history of artificial feeding is a guide.

When the disease is diagnosed early, the prognosis is very favorable, but even when scorbutus is recognized late, a cure may be hoped for. Death occurs in unrecognized cases, or in cases with complications.

A Case of Chronic Abdominal Extra-Uterine Pregnancy with Lithopedion.

Jacques and Marien (L'Union Med. du Canada) describes the case of a patient 32 years old who had had one child, and was a widow some 15 years. The symptoms and pelvic exploration pointed toward a fibroid uterus. On opening the abdomen a mass was encountered which filled the pelvis, adhered to the parietal peritoneum, intestines and omentum. After liberating the omentum, a tumor the size of an ostrich-egg was found to the left and behind the uterus. A probatory puncture brought forth nothing. In raising this mass from surrounding adhesions a cyst was ruptured, allowing 25 to 30 cc. of bloody liquid to escape. The tumor was finally brought up and adhesions of the right tube and ovary were noticed. To the left of the tumor and buried in intestinal adhesions a mummified fetus was discovered attached by a broad vascular adhesion, to the edge of the omentum. The fetus was apparently about three months in development and presented signs of advanced mummification with calcareous degeneration. It was independent of the tumor and attached to the omentum by a fibrous vascular membrane in the midst of which the cord could be recognized. The tumor itself proved to be a voluminous organized hematoma within a membranous fibrinous envelope, very dense, about 3 mm. thick, and seemed to have been formed from false, superimposed and adherent layers of membrane; in other words, a pelvic, intraperitoneal and retrouterine hematocele. The case was either a secondary abdominal pregnancy after tubal rupture or tubal abortion; or it was a case of primary abdominal pregnancy in which a fecundated ovum lodged primarily in the peritoneal cavity.

The Use of Collargol in Diphtheria.

Netter (Annals de Med. et Chirurgie) reported to the Societe de Pediatrie six cases of grave diphtheria treated by intravenous injections of collargol, One case died; in the remaining 5 cases improvement was so marked that, in spite of previous scepticism, Guinon was led to believe in the efficacy of collargol in cases of toxic and bronchial diphtheria, which ordinarily prove to be fatal.

On December 11, 1902, he reported early results obtained by the use of collargol in infectious diseases. Since that time he has continued to employ it.

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The author uses collargol during the first days of the disease.

The writer reports a series of 636 cases of diphtheria in which he administered collargol: 597 patients received, upon admission to the hospital, an inunction of 15 per cent. collargol ointment. In the milder cases the inunction was not repeated; a second inunction was given on the following day in serious cases. In 41 cases which had progressed to the malignant stage, or in which bronchopneumonia had supervened, he resorted to intravenous injections; 31 patients received one injection, 9 received two, and 1 received four injections. Ten centigrams, or 5 cc. of a 2 per cent. solution, were used. Seventy-nine patients died, 30 dying within twenty-four hours after admission. In 1901 the rate mortality was 20.4 per cent. in 1903 it was 13.2 per cent.; if those cases in which death occurred during the first twenty-four hours be omitted the death-rate is found to be reduced to 8.6 per cent.

The use of collargol, coincidently with anti-diphtheritic serum. is advised.

Causes and Effects of a Return of Mother's Milk to the State of Colostrum During Lactation.

Spolverini, in the Riv. di Clin. Pediatr., concludes, after an exhaustive study of the subject—(1) The most common causes which produce a return to the colostral state include psychical factors, such as sudden emotions, grief, or fright, or prolonged excitement,and also menstruation, pregnancy, and, in general, diseases in the mother. Irregular or suspended nursing, such as occur, in diseases of the infant also acts as an external cause. (2) The age of the mother, her social condition, and the time which has elapsed after the labor have nothing to do with the phenomenon under consideration. (3) The intestinal disturbances and other symptoms which are observed in infants in such cases, are the effects of the abnormal state in which the milk is found. (4) Such disturbances are almost always of short duration and but rarely require more than a temporary interruption of breast-feeding. (5) In examining milk suspected to possess colostral characters the microscopical examination is decisive, but an oxidizing ferment is almost always found in this milk, and may serve as an aid in diagnosis.

History of Medicine.

Fowler (Edinburgh Medical Journal) says that the diseases of the nervous system are probably treated of in a greater number of articles than any other class of maladies, but much of the work—and that the most important—is, of course, of recent date, and hence may be briefly passed over. In the earliest volumes the treatment of chorea by purgatives, as recommended by Henderson, claims a number of communications, not, however, of any great interest. In 1818, memoirs on nervous diseases, from the pen of John Abercrombie, appeared. Alike from the inherent merit of his writings, their originality, their extent, and the range of subject which they comprise, his contributions to the Journal entitle Abercrombie to be regarded as its great pillar of strength in those early days. Like John Hughes Bennett at a later date, he stands pre-eminently forth, a head and shoulder above his contemporaries. The author described spinal meningitis, hæmorrhage, tumor, and compression; in a subsequent series of articles he wrote on inflammation of the brain and on apoplexy. Cases of the last disease he classified into apoplectic, those beginning with headache and going on to coma, and those accompanied by transient, if any, affection of consciousness, but characterized by paralysis and disturbance of speech. The author mentions hæmorrhage and apparently thrombosis as causes, but not embolus, though he knew that apoplexy was a not infrequent concomitant of heart disease. In further papers on organic diseases of the brain, in 1819, the author distinguished cases according to their leading symptoms —headache, affections of the sense organs, convulsions, paralysis, vomiting, and apoplectic seizures. He recognized, moreover, that these symptoms often occurred in combination, e. g., convulsions and headache, paralysis and affections of sight. The writers cases appear to have been for the most part gummata, tumors, cysts, and thrombosis. In these, as in all his writings, one marvels at the diligence with which he analyzed and commented on his wealth of clinical and anatomical material. In 1824, Bardsley brought home from Paris observations on the treatment of mental derangement at the Salpetriere. He speaks highly of its humanity, neither venesection, emetics, nor the cold bath being used. Laycock's earliest papers appear in 1838, the author being at that time house surgeon in the York County Hospital. The author's subject, hysteria, was evidently congenial to his speculative and versatile intellect, for he returns to it anew in 1839, illustrating and commenting on the topic with a wealth of reference not only to medical, but to biological and ethnographical literature rare in those days. Hughes Bennett's pathological and histological investigations on the nervous centres in the volumes for 1842 and 1843 are comparable in their extent to those of Abercrombie. They are among the first instances of the use of the microscope (Bennett relates that his instrument was made "under his own eye" in Paris) in the study of morbid anatomy, and deal largely

IN THE TREATMENT OF

ANÆMIA, NEURASTHENIA, BRONCHITIS, INFLUENZA, PULMONARY TUBERCULOSIS, AND WASTING DISEASES OF CHILDHOOD, AND DURING CONVALESCENCE FROM EXHAUSTING DISEASES,

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with the nature of softening and the "exudation corpuscle." In 1852, Lockhart Clarke's researches on the structure of the spinal cord were published. In addition to discovering the column which bears his name, he traced the spinal accessory fibres to the anterior horn. In the next year, Budge described the action of the third nerve and sympathetic on the movements of the ocular muscles, and the connection which subsists between the optic and third nerves through the anterior corpora quadrigemina. In the early sixties, Laycock and Warburton Begbie differed as to the nature of exophthalmic goitre, and wrote papers in support of their respective views. Laycock, who apparently did not clearly recognize the unity of the symptoms of Graves' disease, maintained that the "protrusion of the eyeballs termed anæmic" had a cerebrospinal origin. Begbie, on the other hand, held to its anæmic nature, though he believed the nervous system also took part in its production. In 1863–64, Greenhow published an account of post-diphtheritic paralysis, and about the same time Sanders began a series of papers on neurological topics—paralysis of the palate in Bell's palsy, aphasia (his was the first published autopsy in Great Britain of a case of motor aphasia due to lesion of Broca's convolution), and other subjects; the brilliancy of these makes us regret the more their untimely interruption. From this date on scarcely a year but has valuable original contributions to the pathology of the ner vous system—Begbie, Fayrer, Scoresby Jackson, and later Wyllie and Bramwell, wrote on aphasia, and Ireland (the jubilee of whose career is now approaching) on idiocy and imbecility—a work which, begun thirty-three years ago, is still a standard textbook. Charcot contributed papers on "Scleiose en Plaques" between 1875 and 1877, while at the same time Stirling's work on the spinal reflexes appeared. The late Sir Thomas Grainger Stewart wrote his well-known article on paraplegia in 1876. He followed it in 1880 by a paper on paralysis of the hands and feet, one of the first observations on peripheral neuritis. Tuke's lectures and essays, Clouston on neuroses of development, Bramwell on cerebral tumor, and Gibson on nervous diseases of the heart are recent standard monographs.

Treatment of Ringworm by X-Rays.

Bunch (Brit. Journ. of Dermatol.) says that the difficulty in treating ringworm lies in the fact that antiseptics only penetrate to the depth of 1 millimetre, whereas the hair follicle of a child is implanted 4 millimetres. He describes Sabouraud's treatment by x-rays. The diseased hairs fall out and are replaced by healthy ones. Such results can only be obtained by careful dosage. From the 15th day onwards the hairs fall out over the area treated, and in a few days the depilation is complete. A new hair grows from a new papilla at the end of the hair follicle, separated from the dead hair by epidermis. Thus the parasite can be eliminated by a physiological process without the new hair becoming contaminated. The new growth generally appears in the seventh week after depilation. The usual causes of non-success are insufficient depilation and reinoculation. In spite of these possibilities, the results are good. Before this treatment, the average time of treatment for ringworm at the St. Louis Hospital was eighteen months. Under the x-ray treatment the time is said to be three months and a half.

Action of the Liver on Diphtheria Toxin.

Lander and Brunton (Journal of Pathology and Bacteriology) have circulated diphtheria toxin through the freshly isolated livers of rabbits and cats and investigated the effects produced by inoculating into guinea-pigs material recovered from the livers. They find that during the circulation of diphtheria toxin through the liver its lethal action is greatly diminished. This diminution occurs whether the toxin be mixed with an indifferent fluid or with blood. The bile and the juice from such a liver have a slight antitoxic action, and nucleo-proteids separated from the liver juice possess this action in a marked degree. The behavior of the liver in lessening the toxic power of diphtheria toxin is regarded as similar to that which it exerts in ordinary digestion in lessening the toxic action of peptones. These experiments are held to support the view that "immunity, natural or acquired, is nothing more than an extension to the cells or the tissues generally of a power which is constantly exercised during digestion by those of the intestine and liver."

Zinc Chloride in Infected Wounds.

Brose (Deutsche med. Wochenschrift) in his experiments on rabbits shows positively that a wound cauterized with a 50-per-cent solution of zinc chloride is protected against infection. This result was obtained even with the most virulent infection, and when the interval of one minute had elapsed between the making of the wound and the cauterizing of it. The author was unable to demonstrate that zinc chloride even in the strongest solution was an antiseptic. The writer's experiments showed that the severity of the infection varied according as the germs were driven into the tissues or not.

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Complications of the Operation of Tonsillectomy.

Wroblewski (Pester Med. Presse) says that a rare sequence of excision of the faucial tonsils is peritonsillar abscess. The wound itself commonly becomes the seat of mild infection and at times may prove the culture ground of virulent diphtheria.

When the galvano-cautery or snare is used to eradicate the tonsil, edema of the base and pillars is a usual sequence, and this may spread widely through the pharynx and larynx. Injury to the anterior pillar with the free bleeding that commonly follows can be avoided by care in the operation.

A badly made instrument, or awkwardness in handling it, may result in a break of the knife during the operation, especially if the anterior pillar, or a hidden calculus in the tonsil becomes wedged in the gullotine. Imperfect technique may thus cause injury to the soft palate, the base of the tongue, the pillars of the fauces, or even the lips themselves.

He had a case in which paralysis, total of the right and partial of the left cord followed this operation. He believed it due to a reflex action consequent to injury of a pharyngeal branch of the vagus, through which the recurrent laryngeal nerve was affected.

Cautery puncture as a method of lessening the bulk of hypertrophied tonsils is often the cause of a quinsy or a purulent otitis media. The severest complication is that of hemorrhage. This may follow any of the methods of tonsillectomy and not infrequently is of serious import. The chief sources of this danger are: Hemophilia, too deep cutting of the tonsil and excision during active inflammation. The writer urges that tonsils should not be cut while they are inflamed; in anemic patients or in women during pregnancy. Careful examination should be made before operating to see if the tonsils are adherent to the pillars, and if so these adhesions should be separated before the tonsil is excised. A calculus hidden in the tonsil may also be detected by such an examination and should if discovered be removed by incision before the tonsil itself is exsected.

A base of tonsil tissue should be left, as it is not to be forgotten that this tissue has an important function in the oral economy. An efficient guard of leucocytes is thereby provided to overwhelm and destroy the bacteria and toxins which would otherwise pass from the oral cavity to the body.

Paget's Disease.

Jungman and Pollitzer (British Journal of Dermatology) mentions a case; the patient a woman aged forty-six years, whose mother had died of carcinoma at the age of seventy-three years. The disease began in the left axilla as a small, red, lentil-sized, discharging patch. In a year's time it had reached the size of a florin, and had continued to spread, untii in four years' time it was as large as the palm of a child's hand. Up to this moment it had always been diagnosed as eczema, and it was then that the patient came under the care of the authors. It was then excised, with no success, but continued to spread, and a few months later the patient began to notice the presence of a tumor in the axilla. The patient's general health began to give way greatly at this time, and the loss of weight was considerable. She was then treated by means of the x-rays and radium, and was demonstrated later in the Society of Physicians, with considerable improvement. In fact, with the exception of a narrow band the whole of the skin lesion had healed, and the deeper trouble was showing progressive resolution. There is a detailed histological examination differing in no particular from that usually seen in such cases, and there are very successful drawings of the clinical and microscopical condition.

The Treatment of Cancerous Tumors of the Stomach by Radiotherapy.

Doumer and Lemoine (Journal de Physiothérapie) report twenty cases of cancerous tumors of the stomach treated by radiotherapy. Of this number three are cured. A fourth is still under treatment and is progressing so satisfactorily that a cure is looked for, and a fifth, whose rapid improvement with total disappearance of the tumor was remarkable, had a relapse and, unfortunately, could not return to them for treatment. The course of the disease in the other cases was variable, and their histories teach many interesting lessons. In all their patients, without exception, the pain disappeared or was greatly lessened, even after the first few exposures. The vomiting ceased or became more infrequent, and as a result alimentation was greatly improved.

There was no doubt that the treatment caused in each case an improvement in the general condition and the local manifestations. The patients saw their suffering diminish or disappear, and their hopes revived.

These writers observe that the tumor was reduced in size, and in some cases disappeared completely. But in the unsuccessful cases, when it disappeared from its original site it would reappear in the immediate neighborhood or in some one of the surrounding organs. Radiotherapy did not

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seem to influence the growths unless they were superficially situated.

From their observations in the treatment of these cases and of external cancers, they conclude that in the patients who were cured the growth must have been of the epithelial type, either primary or a malignant degeneration of an old gastric ulcer; while in the patients who were not benefited by the rays, or in whom recurrence took place, the growth must have been of the connective tissue type.

New Treatment of Cardiac and Renal Dropsy.

Renaut (Med. Press) in a paper refers to the treatment of these dropsies by the administration of macerated pork kidneys, and related four cases in which this method was of value. The first was a case of old-standing bronchitis, nephritis, and edema of the lower extremities, in which the dropsy and albuminuria disappeared, at least for the year following the treatment. The next case was a man, aged 56, who had much albuminuria, slight anasarca and edema of the lungs, and in whom two pork kidneys, macerated for four hours in a pint of salt water, reduced the albuminuria gradually till it completely disappeared and the other symptoms disappeared. A similar good et-

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Literature on application.

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fect followed in a case of generalized arteriosclerosis with attacks of dyspnea, and also in a case of post-influenzal myocarditis. He believes macerated kidney is one of the most efficient remedies for renal insufficiency, that it acts rapidly and surely, it increases diuresis and diminishes the albuminuria, causing it to disappear for long periods, and hence by prolonged functional rest gives a chance for the restoring of the glandular renal epithelium in cases where it is histologically possible. The only inconvenience ever produced was slight pruritus, urticaria, and sweating. The treatment is continued for ten consecutive days, after which it is stopped for five days and then resumed.

The method suggested is at least well worthy of trial, and will no doubt be tested in those cases in which drugs so frequently fail to remove the dropsy. But we assume that there is no special virtue in "pork kidneys," and that the organs of other animals would be equally effective.

Suprahepatic Omentopexy.

Guillot and Courbet (Gazette des Hopitaux).

Guillot, in 1902, asserted that the fixation of the omentum between the diaphragm and the convex surface of the liver was an improvement on Talma's operation on the following grounds:

1. The hypertrophic form of alcoholic cirrhosis is the only one which should be spontaneously curable. In this form the existence of fibrous perihepatitis, often developed to a great degree, is a constant factor.

2. Compensatory vascularization due to perihepatitis probably plays a prominent part in the regeneration of the liver substance, which Hanot and Kahn have shown to take place in hypertrophic forms.

3. The best way of producing porto-caval anastomosis and compensatory vascularization of the liver is to fix part of the omental apron between the convex surface of the liver and the diaphragm.

By this means vascularization is aided between the liver and omentum, and this increased vascularization promotes actual regeneration of the liver, as shown by Hanot and Kahn, and as shown in the analogy of what takes place in the kidney substance when decapsulation is performed. In this connection it is useful to remember that the superficial and perforating branches of the hepatic artery run to the surface of the liver, and form a net work under the fibrous capsule. This artery is the main source of oxygenation and nutrition for the liver cells, and its importance must not be underestimated in cirrhosis in which the establishment of a complementary circulation must be of value.

They record a case of cirrhosis and ascites in which the operation was performed. The patient was tapped several times, drawing off 12 to 15 litres of fluid at each tapping. No result following medical treatment, suprahepatic omentopexy was decided upon. At the operation the omentum was found retracted and much thickened, and apparently too short to pull up between the diaphragm and the liver. By tearing the serous coating which surrounded it, sufficient of the mesentery was unfolded to allow of its being placed in position. A drain was inserted in the lower angle of the wound. The subsequent history is uneventful. Hiccough was present for the first two days (probably caused by the constriction of fibrils of the phrenic nerve, which are normally present in the falciform ligament). Some subsequent tappings were necessary, but the patient was discharged well in four months' time.

The Contagiousness of Diabetes.

Hutinet (British Medical Journal) mentions his personal observations and collected cases to the number of 161. Such well known observers as Tessier, Marie, and Talamon are inclined to accept the possibility of contagion in diabetes. He says that the contagion, whatever its nature may be, is contained in the mouth, the saliva being a vehicle which serves to propagate the disease. It is noteworthy that transmitted diabetes differs in some of its characters from ordinary forms. It is less severe, more easily treated, and certainly more curable. Symptomatologically it differs in the absence of thirst and polyuria, and the glycosuria sometimes disappears spontaneously when the patient is relieved from the possible source of infection. Thus it has been noted in conjugal diabetes that when one of the partners dies the other rapidly recovers. If the contagiousness of diabetes should become an established fact, prophylactic measures are important. The greatest care should be taken to prevent spitting, and all articles of clothing likely to have been contaminated by saliva should be disinfected. Should gingivitis appear in diabetic subjects it should be energetically treated.

Coexisting Uterine and Ovarian Fibromyomata.

Taylor (Edinburgh Medical Journal) points out that ovarian coexisting with uterine fibromyomata of the same kind are generally small. Occasionally one may in such cases meet with a large tumor, and there is then a great tendency to torsion of the pedicle.

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Chorion-Epithelioma: Prognosis and Treatment.

Hammerschlag (British Gynecological Journal) gives a report of five cases, with a consideration of their history in relation to the points at present in question. On the whole he accepts Marchan's views. The author draws the following conclusions: Growths of chorionic epithelium in the uterus may, perhaps under the help of curettage, undergo involution. Nevertheless a malignant tendency may have existed in the cells of the chorionic epithelium, and may be manifested by the formation of malignant chorion-epithelioma outside the sphere of its settlement. Renewed curettage may accidentally give evidence of the unsuspicious nature of the latter, and is therefore not a sufficient basis upon which to found the clinical treatment and prognosis. A considerable time (two to five years) may elapse between the pregnancy and the fatal termination of the chorion-epithelioma dependent thereon.

Ultramicroscopic Examination.

Michaelis (Virchow's Archiv.) says that various dyes behave differently when examined with the new ultramicroscope. Thus, fluorescent solutions never show the presence of small particles no matter how high the magnification, while the very opposite holds with the sulfo-acids with large molecules (indulin, aniline blue, etc.). An intermediate position is occupied by fuchsin, picric acid, etc.; that is, numerous particles are seen but the great majority are too small to give separate impressions. It seems that those dyes which are held in finest suspension possess an elective action to either nucleus or protoplasm while those in coarsest suspension stain more diffusely. The instrument is hardly applicable for the study of stained specimens since all solid particles are surrounded by rings of colored light which makes their identification difficult. In blood films the author has, however, been able to see very small basophile granulations which could not be identified with the usual methods. Albumin in solution behaves like fuchsin, that is, a portion appears in the form of fine granules while another portion is not rendered visible by even intense focal illumination. It is for this reason that quantitative estimations of albumin are not reliable if conducted with the ultramicroscope, as has been recommended. The character of the solution in which the albumin is suspended is also of importance. Thus, with distilled water more particles will be visible than with physiological salt solution, even if the concentration of the albumin is exactly the same.

Myopia.

Clarke (British Medical Journal) gives a summary of his twenty years' treatment of myopia. The author advocates the full correction of all cases of myopia and compound myopic astigmatism. His method is to estimate the ametropia under a mydriatic and to order the full correction for all cases. In high degrees the patients sometimes refuse to accept the full correction, but with this exception he never reduced the spherical glass for near work. Out of 532 cases which had been under observation for more than two years the majority showed no increase in the myopia, and in only three instances had the myopia increased as much as 4 D., and in only sixteen had there been any increase worth mentioning. In some it was necessary to stop all near work, but for these full correction was always given. If this principle were carried out generally, he feels sure that progressive myopia and high degrees will become almost unknown.

Miscellaneous.

Professor Osler's Farewell.

It is a curious fact that the only part of Professor Osler's valedictory address to Baltimore University which was cabled to this side of the Atlantic was his joke regarding the chloroforming of aged men. When one reads the whole oration, (a) however, one finds that he has touched on many points of interest to university life, and that what he said was full of rich suggestion. Declining to give any explanation of his personal reasons for his passage from Johns Hopkins to Oxford—a movement which must have puzzled many—he dilates on the advantage of itinerant university staffs. Too long connection between professors and college is harmful to both. On the one hand, too long occupation in the same round of duties tends to breed self-satisfaction, to narrow one's outlook, and to foster a deadening local spirit. Transferred to fresh fields, new surroundings, and other colleagues, a man gets a fillip which lasts for years. As the mental activity of the professor is the life of his class, so it is to the interest of the university that no member of the staff should remain long enough to get stale. Even when the loss of a professor seems a serious blow to a college, it is generally in the end an advantage. Professor Osler went on to suggest, in humorous vein, the establishment of an international university clearing-house, which should arrange the periodic interchange of teachers between the different schools. While there is much truth in Dr. Osler's remarks, we fear that it is impossible to carry out his suggestions to any great degree. In these countries, at any rate, most medical teachers are dependent on their private practice for a living, and once a man gets rooted in practice he cannot stand transplantation. More easily followed is Dr. Osler's advice to young men to travel much. Not only does he recommend post-graduate visits to centres of research and study, but during undergraduate days he thinks it is well to spend one year or two of the necessary course at some school other than that where the other years have been spent.—London Medical Press.

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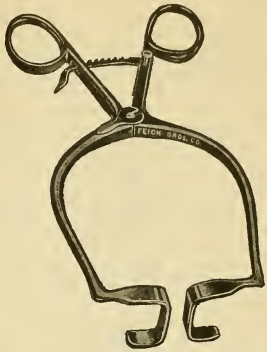

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The Journal of The American Medical Association, March 18, 1905, contains an article by G. V. I. Brown, A. B., D. D. S., M. D.. C. M., entitled "A System for the Surgical Correction of Hair-Lip and Cleft Palate," in which the author describes a method of treatment, accompanied by illustrations and the histories of a large number of successfully treated cases. In his conclusions he says:

"It is too often taken for granted that more or less sloughing and pus formation must follow extensive mouth operations, and that surgical asepsis is impossible. In a sense, this must be admitted to be true, owing to natural anatomic obstacles to complete sterilization and the constant exposure to infection from so many sources, but notwithstanding all this, most gratifying results can be secured, and so nearly a true primary union obtained as to make its essential benefit the same even with extensive wound surfaces. With the periosteum stripped from the palate surfaces; incisions reducing circulation to the farthest safe limit; nasal secretions above in contact with raw surface: mouth secretions below, mixed, as often occurs, with gastric regurgitations, and vomited matter; only a comparatively thin veil of tissue bridging the space of the palatal separation of the bones, and at the velum, exposed to destructive influences at every movement of the tongue, or act of swallowing, it goes without saying that only the most rigid adherence to antiseptic surgical care could be effective.

Strong solutions of poisonous, or tissue destructive: germicidal agents are necessarily precluded in the mouth. Dilution in the oral fluids renders otherwise effective solutions of practically no benefit. The histologic character of the nasal, oral and pharyngeal mucous membrane surfaces render sterilization extremely difficult, and it has been conclusively proven, that animal fats, dead mucous cells and other surface coatings resist even powerful drugs to such an extent as to protect underlying bacteria, while germs on the immediate surface are destroyed. Mechanical cleansing, therefore, is a first necessity, and next to this, frequent use of non-toxic, or mild solutions of otherwise injurious germicidal agents. Preparatory preparation of the field of operation consists in scrubbing membranous, dental and other surfaces, removal or antiseptic care of teeth or roots, and at least temporary stopping of carious tooth cavities. My post-operative sheet anchor is dioxogen,* which gives mechanical cleansing, in setting free the dead mucous cells and destroying the resistant nature of the intervening secretions, while at the same time it gives an immediate and powerful effect on bacteria in destroying their vital properties."

* "I use dioxogen because in my experience it has proved the most uniformly free from acid of any of the preparations of H_2O_2, commonly sold as such, and because an impure or a strongly acid solution must necessarily be absolutely prohibited when hourly treatments of the mouths of patients, many of whom are infants, is prescribed."

The Treatment of Exophthalmic Goitre with the Blood of Thyreoidectomized Goats.

In 1894, Lantz treated two exophthalmic-goitre patients with milk from thyreoidectomized goats. The results were so favorable that the treatment was applied to four other patients, all of whom as a consequence showed marked improvement and gain in weight.

In 1894 Drs. Ballet and Enriquez took the blood of thyreoidectomized dogs that had lived long enough to experience the blood-changes which loss of thyreoid function is sure to entail, and injected that blood into patients suffering from exophthalmic goitre. The results were so encouraging that other practitioners soon adopted the method, or a modification of it. The Deutsche Medicinische Wochenschrift, No. 39, 1899, contained a report of three cases of exophthalmic goitre, in the practice of Dr. Burghart, that improved under the treatment, two of them decidedly. Dr. Burghart did not confine himself to the use of injections, but administered a dried alcoholic extract of the blood.

Later a Darmstadt chemical house prepared a serum from the blood of thyreoidectomized sheep, which, administered to patients who had exophthalmic goitre, produced a good effect; it was given both per os and subcutaneously.

A patient of Schultes (Munch. Med. Woch., No. 20, 1902) in whom the symptoms of exophthalmic goitre had been in evidence for four years, with pronounced psychic disturbance at times, is said to have been completely cured in two months by the use of gradually increasing doses of the serum (from the blood of thyreoidectomized sheep).

In 1901 Mobius (Munch. Med. Woch., January 27, 1903), proposed the preparation of a serum from the blood of sheep, from which the thyreoid gland had been removed, to be used in the treatment of exophthalmic goitre. He first injected 1 gramme of serum subcutaneously, but subsequently found that better results could be obtained by giving it internally. In his patients, all of whom had been treated for years with various remedies, the circumference of the neck was reduced, the goitre became smaller, and the patients slept better and were less agitated. It is not presumed that a cure can be established by this mode of treatment, but there seems to be sufficient ground to hope for beneficial results.

Messrs. Parke, Davis & Co. have prepared a dried product of the blood of thyreoidectomized animals, called "Thyreoidectin," which appears to produce the effects observed by Lantz, Mobius, et al. In most of the cases in which it was tested the patients experienced much relief from restlessness, tremor, insomnia. and the usual train of nervous symptoms so generally observed. A gradual reduction of the pulse-rate and in the size of the gland was also noted.

The Coughs of Childhood.

In the coughs of childhood the ideal sedative and expectorant must be one which accomplishes its ends without depressing action and which is not irritating and disturbing to the digestive organs. The low grade of nutrition, so frequently found associated with the chronic coughs of childhood, makes it necessary to avoid in every way therapeutic agents which will interfere with nutrition by the disturbance of digestion, while this same weakened state makes the child the more susceptible to depressants and narcotics. The preparation of a suitable expectorant and sedative is one of the problems of pediatric practice. During the winter of 1904 and the early winter of 1904–1905, Fitchmul was used in a considerable number of cases in the department of pediatrics in the Chicago Clinical School, of Chicago, in the clinics of Dr. Marcus P. Hatfield, Professor of Pediatrics. This is a combination of the active principles of fir balsam, Venice turpentine, chloric ether, with dilute hydrocyanic acid, tartar emetic and aromatics. The combination is so made as to produce a palatable mixture, stimulating to the mucous membranes, allaying the cough and stimulating expectoration, without the slightest depression or disturbance of digestion. The results attained with Fitchmul, especially in infants and children of low vitality, were exceedinglo gratifying. In such cases it was found advisable to use it alone, but in cases where pronounced action was indicated, it was used as a vehicle for codein or creosote.—Editorial from the Chicago Clinic and Pure Water Journal.

The Charlotte Medical Journal.

VOL. XXVI. CHARLOTTE, N. C., MAY, 1905. No. 5

Report of Some Surgical Cases Treated at the James Walker Memorial Hospital, Wilmington, N. C.

By J. Akerman, M. D., Wilmington, N. C.

Case I. Gunshot wound of the abdomen, perforation of the intestine, injury to the ureter, death, autopsy.

Chas. H., male, colored, æt. 20, admitted March 25, 1904.

Patient said to have entered a store about 7 A. M. In making his escape received contents of one chamber of 38-caliber revolver. Was seen a short time afterwards at the police station lying on the floor in intense pain and transferred to the hospital at once. On removing the clothing the ball dropped from the front of the trousers. The ball was not distorted except by the rifling in the bore of the barrel.

The wound of entrance was two fingers breadth to the left of the median line and three below the upper boarder of the ileum. Wound of exit was two fingers breadth above the symphysis pubis and two to the left of the median line. Patient complained of intense pain throughout the whole lower abdomen, abdominal muscles quite rigid, considerable tenderness, face pinched, marked paller, pulse weak. Catheterization secured small amount of clear urine.

Preparation was made for immediate operation and operation commenced about 1½ hours after injury. Chloroform anæsthesia used. Median incision was made from symphysis pubis to umbilicus. There was a considerable amount of clotted blood found in the abdominal cavity. Five perforations were found in the small intestine and closed with running sutures of fine silk. The one perforation in the mesentery which was causing the hemorrhage was closed with cat gut. Four perforations in the large intestine were closed with silk. The posterior rent in the peritoneum was examined and no injury of the ureter was made out at the time but on account of the bad condition of the patient no very extensive search was made and the rent was closed with fine cat gut. The abdomen was flushed with normal salt solution and closed with silk worm gut except for small space at the lower angle where a tube was passed to the cul de sac.

Man rallied somewhat after the operation and on the following day seemed to be holding his own very well. There was a slight serosanguinous discharge from the wound. On the 27th, there was some serous discharge from the wound, little or no distension and abdominal respiration fairly well marked. Bowels moved with the aid of saline and enema. Small quantities of albumen water were given by mouth. Temperature continued 102–103 F. Urine voided.

On the 28th, patient seemed to be in fair condition, hiccough began and dressings were saturated with a fluid of urinous odor. On the 29th, the condition continued to grow worse and there was considerable urinous discharge from the wound though small amount of urine was voided. Abdominal distension was quite marked.

On the morning of the 29th, the patient seemed much weaker, and abdominal distention was more marked. The hiccough grew worse and vomiting began. No urine had been voided during the night. Patient died in vomiting spell about 11:15 a. m.

The coroner's autopsy showed turbid peritoneum, distended bowels and loose adhesions between the coils of intestines.

The rents in the intestines had begun to heal. On dissecting the left ureter it was found to have sloughing area involving about one half its circumference. This area was in the track of the bullet.

The bullet had evidently nicked the ureter at the time of the injury and sufficiently injured the tissues to cause subsequent sloughing and leakage into the cavity. The point of interest in the case is the difficulty if not the impossibility of foreseeing the subsequent events at the time of the operation.

Case II. Gunshot wound of the foot, tetanus, death.

J. R., male, colored, æt. 17, admitted Oct. 25, 1904.

Received contents of one chamber of a shot gun in the sole of left foot. Was seen at his home a few minutes after the accident, found with a bunch of old rags around the bleeding foot, was removed to the hospital at once. On examination there was found rather extensive laceration of the sole of the foot at the root of the toes. Moreover the wound was seen to be full of debris so the patient was put under the influence of an anæsthetic and several ounces of debris composed of shot, clothing, wads, etc., removed. The wound was irrigated with a solution of Bichloride of Mercury (1-1,000) followed by sterile water, packed with gauze and partially closed with two silkworm gut sutures. As the patient was anxious to go home and return for dressing he was allowed to go home as soon as he recovered from the anæsthetic. On the following day he returned and the wound was quite clean. It was dressed on the 30th,

and again on the 1st. Both times it appeared to be healing rapidly.

On the 1st, he stated to the nurse after I had gone that he thought he was suffering from neuralgia of the face but was not very severe. The following day I learned from the physician who was called in that he had a well developed case of tetanus. I learned that he died a few days later.

This case is reported not for any special feature in itself but bring out discussion as to the treatment of cases where there is a strong probability of tetanus infection.

Of course they should all be carefully cleansed, preferably under anæsthesia.

The prophylactic use of antitoxin has been tried with good results in the Hudson Street Hospital New York. The therapeutic use has been of little value after the onset of symptoms.

In view of the coming Christmas festivities and the accompanying casualties from the toy pistol it is a subject that should claim our careful attention.

The case under discussion could probably have been saved by the prophylactic use of antitoxin.

Case III. Ectopic gestation, operation, fæcal fistula, hemorrhage exhaustion, death.

A. E., female, colored, æt. 40, admitted Jan. 11, 1904.

History very indefinite, had not been pregnant for four years, and menstruation had been regular until Nov. 1903, when flow appeared some days later than expected. There was no period at all during December. For some weeks there had been some pain in the lower abdomen with general weakness. The onset, however, was gradual.

Vaginal examination showed uterus in retre position, cervix soft. In front of the uterus on the right side there was a rather hard mass reaching as high as the umbilicus, extremely tender on pressure.

On the 14th, she was operated upon and on opening the abdomen numerous clots were seen. There was a large mass adherent to the transverse colon and occupying the position noted on vaginal examination. After carefully freeing the mass from the colon it was found to spring from the posterior surface of the broad ligament so had evidently twisted over in front of the uterus. The mass was so adherent to the uterus that it was removed together with both ovaries and the body of the uterus. The tissue was so friable that it was very much broken up in removal. As the condition of the patient was so serious a pack was placed down the stump and the upper part of the wound closed with silkworm gut. The anæsthetic was badly borne and the patient barely lived through the operation but rallied afterwards. On the 17th, there was a slight fæcal odor to the discharge from the abdominal wound and some bulging and fluctuation in the cul de sac. Vaginal puncture drained off considerable sero-sanguinous fluid. General condition continued to improve and on the 29th, the stitches were removed and union in the upper portion of the wound found good. With the exception of fæcal discharge from the abdominal wound and the vagina condition continued to improve until Feb. 10th, when a large fæcal mass passed through the wound and caused considerable hemorrhage which was partially controlled by packing but returned at intervals until the 12th, when it ceased but the patient had lost rapidly in strength and died on the 13th, apparently from exhaustion. Consent from autopsy could not be obtained.

There can be no doubt as to the nature of the tumor as villi were seen in the fresh specimen and sections showed typical placental tissue. The history seems rather indefinite and emphasizes the advisability of always considering the possibility of ectopic pregnancy in doubtful cases of abdominal tumors. The amount of hemorrhage at the final decline did not seem sufficient to cause such exhaustion. Perhaps an autopsy might have given some valuable additional information.

Report of a Case of Multiple Perforations of the Stomach, Mesentery, and Intestines, With Recovery.

By John Egerton Cannaday, Surgeon in Charge Sheltering Arms Hospital, Paint Creek, West Virginia.

Charles Scott, race Ethiopian, nativity, Pittsburg, Penn., age 17 years; occupation hobo, a lithe and wiry youngster of comparatively slight build, height five feet three inches, weight about one hundred and five pounds. Dark skinned, having a slight admixture of white blood. Of a nervous and irritable temperament. Entered the hospital September 5th, 1904, at 4:30 p. m. Was in a state of severe shock, haematemesis, cold extremities, profuse cold perspiration, temperature 95 2-5 deg. F., pulse 120, respiration 38. Evidently suffering from severe internal hæmorrhage. Was stealing a ride on a freight train when he was shot with, probably a thirty-eight calibre pistol, by a man standing on the same car within two feet of him. This happened at three o'clock p. m. The freight conductor brought his patient on to our station, where he was admitted to the hospital. A warm sponge bath was given him, patient wrapped in blankets, hot water bottles applied, strychnia 1-30 grn. and adrenalin min-

ims were given hypodermatically. Patient was taken to the operating room at 6:30 p. m. As his condition was very bad he was given 1000 c.c. of normal saline solution by hypodermoclysis, simultaneously with the administration of the anæsthetic (chloroform) and the performance of the operation.

Assisted by my colleague, Dr. J. H. Hansford, I opened the abdomen in the median line, extending the incision from a point just below the ensiform cartilage nearly to the umbilicus. The abdomen was found to be filled with blood from a very profuse hæmorrhage resulting from an injury to a large artery of the mesentery.

The ball entered in the lower outer quadrant of the epigastrium, just below the liver line. Entered the stomach near the pyloric end ranged downward and emerged at a point 5½ c.m. from the place of entrance, did not injure the transverse colon, then passed through several knuckles of the jejunum and ilium making eight perforations of the small bowel, some of them being of the "keyhole" character had nearly severed the continuity of the bowel, fortunately the mesenteric border of the intestine had not been injured in a single instance. Although the intestinal wounds were near each other and two of them were as much as 1.8 c.m. across, it was decided to suture each one separately rather than resect the gut. Then the ball passed through the left upper portion of the umbilical region, afterwards into the left lumbar division emerging a short distance above the anterior superior spine of the ilium. In addition to the intestinal wounds there were three complete perforations of the mesentery at points about midway between the visceral and parietal attachments, the ball passing through one fold and cutting off an angle of another.

The perforations of the stomach, mesentery and small intestine were each closed in turn with fine silk. In this work I used a highly curved round needle having no cutting edges, and pierced all the coats of the gut.

The peritoneal toilet was made by thoroughly removing all blood and fecal matter by copiously flushing the cavity with warm saline solution, some of which was left behind when the abdominal wall was closed. The external bullet wounds were carefully cleansed.

The incision in the abdominal parieties was closed without drainage by silk and silkworm gut sutures, fine silk for peritoneum, mattress sutures of silk for fascia, tension sutures of silkworm gut for fascia, muscles and skin, and button hole stitches of silk for the skin approximation.

The patient was so seriously shocked that but a small amout of chloroform was administered and hence he soon regained consciousness. As the patient was very restless and in great pain ¼ grn. morphia with atropia was given. Temperature continued subnormal, blood pressure low, pulse rapid, from 130 to 140, respiration shallow, stimulation had to be kept up throughout that night and most of the ensuing day, two enemata each containing two ounces of hot whiskey and six ounces of normal saline solution were given during the night. Adrenalin was administered hypodermatically every three hours in four minim amounts well diluted with saline solution alternating with strychnia grn. 1-30 every four hours. Patient remained hard to control having only an occasional nap of a few minutes. When the stage of shock had passed adrenalin was discontinued and the strychnia kept up with fewer doses. Nutritive enemata of peptone two ounces, saline solution four ounces were given at six hour intervals, while saline solution enemata were administered every three hours and oftener when needed to relieve thirst. The first period of convalescence was stormy. The second day the temderature ranged from 101½ deg. F. to 102 3-5 deg. F., pulse keeping above 130, respiration varying from thirty-four to fifty. The kidneys were active, plenty of urine being voided. Patient was delirious at intervals and suffered from paroxysms of severe abdominal pain. Fourth day the temperature declined, pulse and respiration improved. The rectum became irritable from the continued introduction of nutrient enemata, these were for a time discontinued, later given twice daily. There was a considerable discharge of bloody mucus from the rectum and even the saline injections were retained with difficulty unless a small amout of tincture of opium was added. The sixth day the patient was allowed water by mouth for the first time in one ounce amounts. The seventh day peptone was added in two ounce doses every three hours. The temperature which had been quite irregular dropped at once to normal and remained so. The ninth day semi-solid articles were added to the diet and the external stitches removed. Healing was per primam. The twelfth day the patient sat up and at the end of the fourth week left the hospital.

The points I would emphasize in this case are the value of: First, appropriate stimulation, saline solution by transfusion or by rectum to make up the lost content of blood, to relieve thirst, and promote kidney activity. Adrenalin to raise blood pressure and give tone to the vascular system in conditions of shock. Whiskey and strychnia as general stimulants. Nitroglycerine I be-

lieve to be a dangerous drug in shock, as it dilates the blood vessels it is but fair to presume that it increases the pathological entities that go to the making of the condition called shock. Second, total and absolute rest for the perforated and sutured bowel until healing has so progressed as to be beyond the possibility of the danger of leakage. And last but most important; early surgical aid in these cases.

The Danger of the Unrestricted Entertainment of Tuberculosis Patients in Our Mountain Health Resorts— A Popular Exposition of Consumption, What it is and How to Restrict It.

By Arthur R. Guerard, M. A., M. D., Flat Rock, N. C.

Mr. Chairman, Ladies and Gentlemen:

Deeply as I appreciate the honor which you have conferred upon me this evening, it is with considerable hesitancy that I have ventured to accept the invitation to address you on so delicate and difficult a subject as that which has been assigned to me, viz: "The Danger of the Unrestricted Entertainment of Tuberculosis Patients in Our Mountain Health Resorts." The subject is one particularly difficult to handle, not only because of the intimate relation which we ourselves bear to it in our daily intercourse and in our own homes and families, but also because of the strangers within our gates, whose sensibilities we do not wish to offend. And yet it is a matter of such grave importance that it is well for us to pause and consider, (especially in this beautiful health resort of ours where we still have comparatively few consumptives) what we can do to avert or lessen a danger which threatens, or will undoubtedly soon threaten, the welfare of our section, unless we take measures to avoid it. In order to realize, however, in what the danger consists and, without being unduly alarmed, to intelligently safeguard ourselves against it, we should understand clearly the situation; we should familiarize ourselves with consumption and learn what it is, before we can attempt to control it.

The introduction of such a subject before the public needs no apology, involving as it does great economic as well as sanitary problems. It is not an abstract question of science, interesting only to specialists. It is of common interest to all, men and women, the well and the sick, laymen and physicians alike. Though worthy of the consideration of all thinking people, it is a subject which contains nothing that the most ordinary intellect cannot readily understand. The discoveries, it is true, which have led to our present knowledge of the nature of tuberculosis, are the result of scientific investigations worked out in the laboratory and confirmed by observation and experience at the bedside. But the conclusions which have been reached, and the practical deductions which have been made from them, are remarkable for their simplicity. Many persons, I am aware, are prone to regard all medical or scientific subjects as abstruse, if not mystical, intelligible perhaps to Doctor Faustus and other gentlemen of that ilk who dabble in

> "Juristerei und Medicin.
> Und, leider! auch Philosophie"

but of no concern to any one else and beyond the comprehension of the "man on the street." Yet, as Professor Huxley, the great lay-preacher of the gospel of Popular Science, has said: "Science is nothing but trained and organized common-sense * * * The vast results obtained by science are won by no mystical faculties, by no mental processes, other than those which are practised by every one of us, in the humblest and meanest affairs of life." And not only is this subject of consumption of common interest and easy to be understood by all, but it is our duty as responsible men and women to acquire correct information regarding the disease, so that we may be able to successfully combat it. For though a danger greatly to be dreaded, tuberculosis is not an inevitable decree of fate, not a visitation of Providence over which we have no control, but like many other ills from which mankind unhappily suffers, the remedy for it lies largely in ourselves.

If you will permit me, therefore, I will endeavor to lay the matter before you in such plain, untechnical language that "he who runs may read" and draw his own conclusions. And finally I may offer for your consideration a few suggestions which have been found to be practically useful in restricting tuberculosis in New York and other large cities.

Now everybody knows in a general way that the progressive wasting disease, popularly called consumption, is a common and serious affection. But there are few who realize its enormous prevalence and mortality. It is by far the most prevalent and fatal disease to which mankind is subject. It attacks at least one-third of the human race and causes the death of from one-seventh to one-fifth in the course of a single generation. Of all deaths due to consumption or tubercular diseases nearly three-fourths are caused by consumption of the

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lungs, the form with which we are most familiar. It has been conservatively estimated that, of the seventy-odd million people living to-day in the United States twenty millions, at least, of the population are now affected, and that ten millions or more will die of this disease, unless something is done to prevent it. These figures, large as they are, are believed to be much too small. The number of persons actually infected with some form of tuberculosis is indeed so enormous, in the opinion of some investigators, that we hesitate to give it. Another significant fact of economic importance is that the larger proportion of those who die of consumption are carried off between the ages of 15 and 45, that is during the period of their greatest usefulness and productive capacity. It has been computed, reducing this fact to a pecuniary basis, that the total money loss to the United States from consumption exceeds the huge sum of a billion dollars a year. It is, of course, impracticable for me to furnish you here with all the evidence and statistics, even if you cared to hear them, from which these data have been taken. Suffice it to say that tuberculosis not only causes more deaths and pecuniary loss to the world than war, pestilence or famine, but it is the source of more misery, suffering, poverty and perhaps crime, than any other disease, nay more than all the other ills that human flesh is heir to.

Such being the fact, which has been demonstrated beyond doubt, and it is manifestly impossible for us to avoid coming in contact with consumption every day of our lives, what can we do to arrest or restrict the ravages of this "Great White Scourge?" The first step toward the answer of this momentious question is for us to learn the cause and nature of the disease.

From the earliest times of medicine physicians have been familiar with the symptoms, course, and alas! with the too frequent termination of consumption. But it is only within the last twenty or more years that science has revealed the essential cause of tuberculosis. In 1882, Robert Koch, a German bacteriologist, discovered and described a minute, rod-shaped vegetable organism, which he showed, by a series of careful experiments on animals and upon the human subject, to be the origin of the disease. This tiny living germ, which is only about one ten-thousandth of an inch in length and visible under the most powerful microscopic lens, is the tubercle bacillus. The little parasite does not grow in nature outside the bodies of man and some warm-blooded animals, It may, however, remain alive and virulent for a long time when dry as in the dust or air. In one way or another, these germs effect an entrance into the body and sow the seeds of the disease, and if the conditions in the body are favorable, that is if the seeds fall on soil suitable for their growth, they develop and multiply, producing from their body-cells a poison which, acting on the tissues and parts about them, form little masses of new-growth distributed in which are the tubercle bacilli. These masses are called *tubercles* from their shape. Larger masses are sometimes formed which replace considerable portions of the organs in which the bacilli have been deposited. Finally, as in the lungs, the new-formed tissue or masses of tubercles, containing often countless numbers of these living germs, disintegrates or breaks down, and this broken-down material filled with germs may be discharged with the secretion of the bronchial passages day by day, and perhaps for years at a time, in the expectoration. As rapidly as the old germs are discharged new ones are produced and multiply, thus continuing the process. The usual seat of the disease is in the lungs, but it may occur in any part of the body, in the membranes of the brain, the liver, the spleen, the kidneys, the intestinal and lymphatic glands, the joints or the skin. The essential unity of the process is the same in all cases, the modes of infection only being sometimes different.

All persons, however, are not equally liable to be attacked by tuberculosis, although anyone under certain conditions may become infected. Some people seem to possess a natural resistance or immunity to the disease from birth, while others are peculiarly susceptible to it. To what this is due is not positively known. The susceptibility of body-tissue to the growth of the tubercle bacillus may possibly be analagous to the adaptability of certain soils to some kinds of seeds and not to others. At any rate, for want of a better hypothesis, we may assume for tne present that it is a question of fitness of soil that renders one person more susceptible to tuberculosis than another.

For a long time it was thought that consumption was an inherited disease, and much apprehension and untold misery have resulted in the world from this idea. It is now generally believed, however, that there is no such thing as an inherited tuberculosis, but that if anything is inherited at all it is only a tendency or so-called predisposition to the disease. Indeed there is considerable doubt as to whether this inherited tendency concerns tuberculosis especially, or is anything more than the inheritance of a general delicacy of constitution or lack of vital resistance to all disease.

This is the so-called natural susceptibility

which varies with each individual; but there is also an acquired susceptibility to tuberculosis, which in many cases may be explained but in others cannot. There are many contributing conditions, which may influence the production of consumption. Climate at one time was supposed to have something to do with it; but this is not true. Cold does not contribute to tubercu losis, nor is warmth any protection against it. The disease is as common in Greenland as it is in the West Indian or Hawaiian Islands. There is also a wide-spread idea that dampness is one of the main productive influences in consumption; but the sea is laden with moisture and yet sailors everywhere are less liable to the disease than inhabitants of the mainland. Sudden changes of temperature have not necessarily a deletorious effect, but combined dampness and change of temperature seem to have a marked tendency toward its production. Although not entirely absent consumption is rare at high altitudes and especially among people who lead a wild and wandering existence in the open air, as certain savage tribes for instance. Again, habits of life or occupation have a decided influence for or against the production of the disease, those who follow an outdoor life of any kind, under normal conditions, being much freer from it than those who lead sedentary lives habitually in doors, while it attains its maximum incidence amongst those who constantly inhale impure air in badly ventilated rooms, particularly in occupations associated with a dusty atmosphere. Confinement combined with depressing surroundings, such as is met with in prisons, asylums for the insane and convents, is a well-recognized factor in the production of consumption. Over-crowding and the respiration of impure or previously inhaled air, as is found in the densely crowded lodging-houses and tenements of large cities, is undoubtedly responsible for many cases of tuberculosis. Finally, consumption is pre-eminently a disease of debility, and anything which tends to bring about an enfeeblement of the vital forces also contributes to a condition favorable to this affection. Over-work, worry, depression, disappointment, alcoholic and other undue excesses, deficent ventilation and sunlight, poor food, malnutrition. malassimilation, dyspepsia, etc., each and all of these may in certain cases act as exciting causes. Respiratory and wasting diseases, such as bronchitis, pneumonia, grip, typhoid fever, measles, whooping cough, and the like, may also be operative, creating in the body a soil suitable for the growth of the tubercle bacillus, without which, however, tuberculosis cannot exist.

We come now to the consideration of a most important practical question, to which I would invite your earnest attention, namely, the infectiousness or transmissibility of consumption from one person to another; for herein lies the danger of contracting or spreading the disease.

Previous to the investigations of Koch and his followers, the communicability of consumption was a mooted point even among physicians, although the doctrine was believed and taught by some of the foremost observers from the earliest days of medicine. It has now been demonstrated beyond any reasonable doubt that tuberculosis is an infectious and communicable disease. In order to impress this fact indellibly upon your minds I should like to give you a few striking examples of recorded cases taken from the very voluminous evidence which has been collected upon this subject.

One of the most forcible illustrations of the infectious nature of consumption is shown by the history of the disease in Italy during a century's experience under the influence of restrictive laws, one hundred years before the discovery of the tubercle bacillus. In 1782 the disease raged in Italy in almost epidemic form and was considered to be contagious. A decree was issued by the government requiring all physicians henceforth to report to the authorities every case of consumption the instant it was recognized. Failing this, a fine of 300 ducats (about $700.00) was exacted, and for a second offense banishment for ten years. Poor patients were taken at once to the hospital. Their clothing and linen were kept and cared for apart from those of others and an inventory made, so that in case of death of the owner every article could be identified, and burned. Any infringement of this rule might be punished by imprisonment or the galleys. It was the duty of those in authority to renovate the room of a former patient—floor, hangings and furniture coverings; to burn the window frames and doors, and replace them by new ones. The extreme penalty of the law was visited on anyone buying or selling the effects of consumptive patients. Every house where a consumptive died was black-listed. How long this drastic law remained in force is not known, but it must have been for some time, for it created such a dread of the disease among the people of Italy that its effects are still shown. As a result of these stringent measures the death-rate from consumption in that country was reduced from 10 per 1000 of the population in 1782 to 1.29 per 1000 in 1889. That part of Italy which formerly constituted the Kingdom of Naples, in the country districts and small

towns, is now practically free from the disease; and the mortality from consumption for the whole of Italy, as it exists to-day, is lower than that of almost any country in Europe,—and this was done among a people who are certainly not noted for their cleanly habits or sanitary mode of living, directly as the result of rigid preventive laws against an infectious and communicable disease.

Regarding the transmission of tuberculosis from the sick to well persons, it has often been observed that consumption is apparently communicated especially from husband to wife and vice versa. "A young woman, aged 26, says Dr. Murrell, of London," came of a perfectly healthy stock, there being no evidence of consumption in her family. She married a consumptive husband, and nursed him day and night until the time of his death, which occurred nine months later. During his long illness he expectorated profusely, and the couple were shut up in a room, in which a fire was constantly burning. Soon after his death she developed symptoms of consumption." Dr. Reginald Thompson records 15 cases in which the disease was apparently communicated from one person to another, and points out that the cases to which especial attention should be directed are those of wives infected by husbands, "inasmuch as the possibility of error arising from blood relationship is hereby avoided, and the association of the nursing wife with the sick husband is so constant and intimate that, if consumption can be communicated, it must be looked for in such cases." Dr. Weber, another well-known authority, gives the history of 68 persons, male or female, who, with a more or less pronounced "consumptive taint" married healthy partners. The wives of 39 husbands became affected, and the husbands in more than one instance infected more than one wife.

The evidence submitted as to the possibility of communicating consumption between people who are not in the relation of man and wife includes, among others, the following instances: "A healthy man, aged 22, with no family history of the disease, who went on a visit to the seaside and slept with a young man suffering at the time from consumption, apparently contracted the disease from him and died from it a few months later." In another case, "an apprentice slept with his consumptive master, and soon after developed symptoms of the disease, from which he died." Again, "a lady, aged 20, who had lost her parents and six brothers and sisters by consumption, accepted a situation as governess in a family with an excellent health record. One daughter, who was much attached to this governess, slept in the same bed with her, and never left her till she died. This young lady became tuberculous and died of the disease a year or two later." Again, "A soldier, healthy and without any family history of the disease, who was suffering from some trivial ailment, was sent to a hospital. By chance he was placed in the ward between two consumptives. He rapidly developed symptoms of the disease, and was sent home to his native place. Shortly after, his mother, two brothers and a neighbor and his wife became consumptives."

Tubercular infection, however, may often be better explained on the ground of indirect infection from a house or room in which a consumptive person has lived. In this way may be explained the great prevalence and mortality of the disease in prisons, asylums, convents, barracks, and the like; and this is the probable explanation also of the common occurrence of consumption in the tenement house districts of large cities.

In an investigation into the distribution tuberculosis in New York City, which in the capacity of medical officer for the Municipal Health Department, I was called upon to make in 1896, the following conclusions were drawn: That the distribution of tuberculosis in New York and other large cities gives positive evidence of the infectious character of the disease; that tuberculosis is not uniformly diffused through such communities, not even in those localities where it occurs most frequently, but is confined within narrow boundaries, as in certain streets and within the walls of certain houses; that though there may be some danger of infection from the inhalation of infected atmospheric dust in the open air in crowded ports of the city, it seems probable from the fact that the disease is found clinging to special houses that a prolonged exposure to a concentrated atmosphere of infection, as living in an infected room, is generally necessary to contract consumption.

The evidence of room-infection is so important that I may be permitted to give a few instances of recorded cases taken from the observations of others: Dr. Janeway, of New York, reports: "A gentleman died of phthisis in New York City, after two years' illness in February, 1882. His sister and her husband occupied his room after his death. The brother-in-law began to fail five weeks afterwards and in May was the subject of acute consumption." Dr. Burney Yeo, of England, mentions the following: "A fine young Scotch girl of a healthy long-lived family, was affected with phthisis. On inquiry it was found that some few months before she had been given a bed-room which had just been vacated by a maid-servant with consumption." Dr.

Nevin gives a similar instance: "A married woman from Oldham went with two children, one a lad of ten years old, to Southport, to join her husband, in September. The husband, wife and the two children all slept in one front room. In the same house was a woman suffering from consumption, said to have been contracted from her husband, who had previously died of the same disease. As the weather got colder, this consumptive woman asked him to change rooms with her, as her bed-room was colder than theirs. This was done. The Oldham woman used to complain of a peculiar odor in the room, which does not seem to have had any special cleaning or disinfection. In January, the boy ten years old died of tubercular meningitis. The mother became infected in June, and both she and the baby died a year later, the former of pulmonary consumption and the latter of intestinal tuberculosis."

One of the most striking examples of room-infection on record is that given by Engelman: A particular flat in a large house had been occupied by the families of several glass-blowers employed in a certain factory. This occupation is one known to produce remarkable liability to consumption; and Engelman believes that 75 to 80 per cent. of the workmen in this particular place die of it. It is well-known that this frequently has been ascribed, among other causes, to direct infection from mouth to mouth by the blow-pipe. However, that would not explain the special incidences here recorded. The house was built about 1865 and was generally in tolerable sanitary condition. The particular dwelling in question was badly ventilated and lighted. It was occupied from 1865 to 1873 by three families in succession who were all healthy. In 1874 a family named Nestle entered, in which the mother was already consumptive, and had lost a son from the same disease. She died there from hemorrhage of the lungs, and shortly afterwards the family left, having lived there for one year only. The next occupants were a family (Goetz) of seven persons, all in good health, though there was a history of chest disease in the mother's family. After one years' residence in this dwelling they left, and at a later time it was found that the father, mother, and one son had died of consumption, and a fine boy of chronic tubercular peritonitis. The third family (Gunnel) occupying the dwelling were healthy on arrival, and had no hereditary taint. A child born in the house died of meningitis, another died of marasmus (decline), another boy acquired hip-joint disease—all tubercular affections. Later on the father died of pulmonary tuberculosis, and another child of tubercular meningitis; the mother became consumptive; and a surviving girl was extremely scrofulous. A fourth family (Hubchen) came in after the last mentioned, all healthy. The mother became consumptive, and bacilli were detected in the expectoration. Two children died of meningitis under one year old. Summing up the history, it appears that for eight years (1865 to 1873) the dwelling was free from tubercular disease. Then came one years' tenancy by a person already tuberculous. After this, in a period of twelve years, at least twelve cases of tubercular disease were traced to this source. It is noted that the dwelling was never vacant, the new tenants entering while it was, so to speak, still warm from the last; and during the whole period it was never painted or cleaned. Engelman asserts that this neglect did not occur in other parts of the same house which was a large one; and that no similar instance of tubercular disease clinging to an apartment was observed in them.

But why go on multiplying examples? Enough has been said to show that tubercular infection may and does often attach itself to houses and rooms, and that this is usually traceable, as in other infectious diseases, to contamination by a previous occupant. And, as Payne says, from whom the above instance is taken, even in cases where this cannot be traced, there is nothing to contradict the assumption that the infection may have been originally introduced by a tuberculous person. This hypothesis of house-infection is quite adequate to explain cases of supposed direct personal infection, since a present and living tuberculous patient must contaminate a house or room even more certainly than one dead or departed. On the same hypothesis many cases of so-called hereditary consumption in families may also be accounted for, and especially the numerous instances of the coincidence of the disease in husband and wife; since, as a rule, the inhabitants of one house or apartment usually belong to one family, and members of the same family often sleep together in one room. And even the suggestion of family susceptibility to consumption does not weaken the argument; since no infection spreads inevitably, and there must be some reason why one person is infected and another not; while in acute infectious diseases, like scarlet fever and diphtheria, a family susceptibility, irrespective of infection, is often exhibited.

A word as to animal tuberculosis. In an earlier portion of this address I alluded to the fact that not only man but many warm-blooded animals were subject to tuberculosis. The disease is found in most domestic animals, such as chickens, hogs, guinea-

pigs, rabbits, goats, sheep, and frequently in caged wild animals. Some birds are attacked by a form of tuberculosis, and cats, dogs and horses, although usually exempt under natural conditions, may be infected artificially. But the fact which is of most interest to us is that the disease is extremely common among the bovine species, cows and oxen, from which we derive all the milk and a large part of the meat we use for food. In some dairy and breeding herds, consisting mostly of high-bred mature cows, there has been found as high as 98 per cent. of tuberculous animals. That human and bovine tuberculosis are identical has been inferred from the fact that the germ, the tubercle bacillus, found in the two cases, is practicably indistinguishable. There has been recently considerable discussion upon this point and some disagreement of opinion. Among others Koch, the discoverer of the tubercle bacillus, has declared, as the result of investigations made by him within the last few years, that human and bovine tuberculosis are not identical though similar; that although human tuberculosis is transmissible to cows there is no sufficient evidence to prove that bovine tuberculosis can be communicated to man. A large majority of investigators, however, do not agree with him and claim that the disease may be transmitted from tuberculous cows and oxen to man not only by innoculation but by the ingestion of tuberculous material, milk, meat, etc. Whether this is so or not remains to be shown by farther investigation and experience, but while there is a reasonable doubt about the matter, behooves the public to be on the safe side it and accept, for the time being, the commonly assumed belief that human and bovine tuberculosis are practically identical and transmissible both from animals to man and vice versa, although it may be infrequently so transmitted.

Having now learned that tuberculosis is caused by a specific germ, which is recognizable under the microscope and capable of isolation artificially outside the bodies of man and animals; and that it is an infectious and communicable disease; let us see what are the modes by which infection through the tubercle bacillus is conveyed from animals to man or from one person to another. Fortunately for us these are extremely limited.

Infection is sometimes transmitted by inoculation through wounds of the skin, the result of accidental contamination during post-mortem examination or laboratory experiments. This danger of infection, however, applies only to veterinarians, bacteriologists, pathologists, and the like, and so few cases are recorded that they serve chiefly to show the rarity of the occurrence. Infection is also possible directly from husband to wife and vice versa, through their marital relations; but this, too, is probably very infrequent. There is little doubt that in a certain number of cases tubercle bacilli may be taken in with the food, the meat derived from tuberculous oxen and cows, if this be eaten raw or imperfectly cooked; but infection by this means can hardly be a common occurrence. The meat which is usually sold for human consumption, among civilized communities, is seldom seriously contaminated, it is rarely eaten raw, and ordinary cooking destroys, as a rule, all danger of infection. With milk, however, the danger of infection is somewhat greater. Tubercle bacilli have been found in the milk of tuberculous cows, especially of those with diseased udders. This milk fed to animals produced death from tuberculosis. Moreover, it has been shown that the consumptive mother may infect her nursing child. The common seat of the disease in children is so frequently in the intestines and related glands, and milk forms so large and essential a part of the food of the young, that we cannot avoid the conclusion that it is with them a not improbable source of infection. Again, milk is usually taken raw, there being a prejudice with most people against boiled milk. It is true that children of the rich or those who live in the country, who use milk plentifully, are much less liable to tubercular disease than the children of the poor or city children, who when they get milk are more likely to obtain it from diseased animals or have it contaminated by germs from the atmosphere. Nevertheless the risk of infection from this source is not to be disregarded.

Inasmuch as the usual seat of consumption is in the lungs, it was supposed at first that infection might be conveyed from mouth to mouth by the breath. But it has been proved by repeated careful experiments that the expired air of consumptives is not infectious. Except in the actual particles of matter coughed up no tubercle bacilli have been found in the air exhaled by tubercular patients. On the other hand, we know that persons with pronounced consumption throw off countless myriads of the bacilli daily in their expectoration. It has been estimated that from two to three billion tubercle bacilli, at least, may be coughed up in the sputum of a single tuberculous individual in 24 hours. When allowed to dry this sputum rapidly becomes pulverized and is distributed as dust in the neighborhood of the patient, unless precautions are taken to prevent it. Considering the enormous number of consumptives in the United States and elsewhere to-day, many of whom

are traveling about in search of health and discharging innumerable living and virulent bacilli in their expectoration on the streets, upon the floors of cars and other places, where the sputum can dry and mingle with the dust—considering this fact, which we see constantly exemplified, especially in our mountain health resorts—it needs no stretch of the imagination to conclude by what means the infection is most commonly conveyed, or that this is the main source of danger in the spread of tuberculosis. Besides, from investigations undertaken to prove experimentally the infectious character of the dust in places frequented by consumptives, it has been found that this dust often does contain tubercle bacilli, which when injected into guinea-pigs (animals peculiarly susceptible to tuberculosis) produced their death; that the poison was by no means widely distributed, but that it was concentrated in the immediate vicinity of the patients suffering from the disease; that when sputum cups or cuspidors were used exclusively to receive the expectorated matter and when it was kept moist, in no case was the dust on the walls, furniture, etc., in the neighborhood of consumptive patients found to be infectious.

Flies and other insects which have had access to tubercular sputum, and either eat or collect it upon their feet and bodies, may also act as conveyors of infection to food. Moreover, it is only natural to suppose that articles used by consumptives, such as bed and body linen, eating and drinking utensils, wind instruments, the telephone, the beard and moustache in men, etc., which have become contaminated with infectious material, should afford a possible mode of infection. It is a well-known fact that washer-women, as in health resorts frequented by consumptives, are particularly liable to contract tuberculosis, doubtless in part from the constant handling of contaminated clothing.

With this knowledge of the true cause and nature of consumption, which I have endeavored to put briefly but clearly before you, I think that you will be in a position to judge for yourselves what constitues the danger of the unrestricted entertainment of tuberculosis patients in our mountain health resorts; and to appreciate the necessity of doing something to avoid or control it. For it stands to reason, of course, that although we have no desire to encourage the reception of consumptives in our midst, more particularly in the advanced stages of their affection, we would not if we could, and could not if we would, prohibit all the unfortunates afflicted with this disease from coming here. The principal asset of our health resorts is, as you know, their tourist asset. To do or to leave undone anything, therefore, which might deter visitors from coming to these mountains in search of health, rest or recreation, would be not only suicidal but inhuman. There is not in all America a section of country more admirably adapted for a health resort than the Western North Carolina mountains. Here kind Nature not only has spread with lavish hands for the delectation of mankind scenes more picturesque than Switzerland and skies that rival those of Italy in their azure tints, but also has bestowed on suffering humanity all the health-giving elements of life, viz: bright sunshine, pure air and water and a well-drained soil, at the golden mean of altitude and latitude and with all the meteorological conditions which go to make a wholesome and fascinating resort. These mountains are destined to be the great health and pleasure resort of the Southern and Eastern United States. From all parts of the country visitors are coming constantly and in rapidly increasing numbers; from the South they travel in summer to escape from the torrid heat with its mosquitoes and malaria, or from the North and West in winter to flee from the frigid cold with its lung-penetrating blizzards, snows and mists. But for that very reason, because this is essentially a health resort region, and because those who come to us, even if not all sick or tuberculous, are not in the most robust health, we are of necessity compelled to exert every possible effort to maintain here a high standard of health. But what place can long remain healthy, however fine and salubrious its climate was originally, if infectious disease is allowed to stalk unheeded and without let or hindrance in its streets and houses? You will all readily admit the truth of this regarding such diseases as small-pox, scarlet fever, and the like; but it is equally true, in a less flagrant but more insidious and thus more dangerous way, of tuberculosis. There are few cases of small-pox, in these days, seen anywhere walking about at large; but who can count the cases of tuberculosis that are coming from North, East and West, into our mountain health resorts and the South generally, year after year? Has it ever occurred to you that not only the well people in search of rest and recreation, but even the sick and tubercular ones seeking health will be deterred from visiting this part of the country after awhile, if they have not been deterred in some of our resorts already, unless measures are taken to avert the danger of the unrestricted entertainment of consumptives? What will you do, what can be done, to avoid this danger here, while yet it is time?

There are two principal ways in which

the desired end may be arrived at. The first is by legislative action through the sanitary authorities, State and municipal, by compulsory notification and registration, isolation, and disinfection of every case of tuberculosis, as is done or should be done with all infectious diseases. The second is by creating a public sentiment on the subject, by the enlightenment of the people as to the danger of infection from consumption and its avoidance, through circulars of information issued by associations for the prevention of tuberculosis, for distribution in hotels, boarding-houses and homes; through private instruction of physicians mong their patients; through teaching in the public schools; through the public press; and through addresses like this before the public.

Both of these general plans have been and are now being adopted in many States and cities in the United States with the result that tuberculosis has been considerably restricted in these places. In New York City the death-rate from consumption has been reduced 40 per cent. in the last twenty years, owing to improved sanitary measures of dealing with this diseases. Consumption is a preventable disease and preventable by comparatively simple and easy means, provided these means are taken. But in many States and cities no one even counts the deaths or causes of deaths; no official record is kept of births or transmissible diseases. Some citizens claim the inalienable right to have or harbor any kind of disease without advertising the fact among their neighbors, while others consider it a violation of the sanctity of their homes to be catechised as to births or deaths occurring there. Sanitarians, however, have counted and compared, and it is known positively that wherever notice of deaths and births and transmissible disease is not compulsory, there infant destruction abounds, vice and crime flourish, vitality is low, mortality high—there preventable disease imposes grievous financial burdens and unnecessary anguish upon the community. What about our own State and our own cities? Have we properly organized boards of health with compulsory notification and registration of deaths and births and transmissible diseases, including tuberculosis? Not to have such boards with legislative power to do what is necessary for the maintenance of the public health, is, with our present knowledge of sanitary science, to say the least inexcusable, if it is not an act of criminal negligence on the part of the authorities.

But whatever legislative action be taken, and whatever can or should be done by the sanitary authorities for the restriction of tuberculosis, it is evident that in order to control a disease which attacks one-third of the human race, and causes the death of one-seventh in the course of a single generation, there must be co-operation public and private, individual combined with legislative effort. We are up against a world problem. Are we going to do our share, as a growing and representative health resort section, in its solution?

One of the main obstacles to the adoption by the public of the measures proposed for the restriction of tuberculosis, is their very simplicity. They are told that the disease is caused by a germ which is found mostly in the expectoration of consumptives, and which if allowed to dry and mingle with the dust may be inhaled by healthy persons, who thus may contract the disease; that all that it is needful to do, to prevent the spread of tuberculosis, is to destroy this sputum or keep it moist so that it cannot become dust. The consumptive patient, they are assured, is not dangerous by contact or proximity; that it is neither his body nor his breath which is hurtful to others; and that they can live with him and give him the most constant care and attention, without running any serious risk—provided they take certain precautions, the chief of which is to keep moist the matter which he coughs up. There are other ways, it is true, by which the disease may sometimes be transmitted, as by the meat and milk of tuberculous animals, etc., but such a large majority of cases, they are informed, take their rise from the pulverized sputum of consumptives, that the rest may be practically left out of consideration. This is all so simple and commonplace that, as Russell remarks, after reading all that has been written and spoken and proclaimed and injoined, when we look at our notes and find nothing but sputum, spittoons and dust, we are apt to show a little temper, like Naaman, when he expected the prophet to hold a solemn function over his leprosy, and he merely told him to go and wash himself. Or we exclaim, as the German Emperor is said to have done at the close of one of the International Congresses on Tuberculosis in Berlin, "Soap! Still more Soap!" Thus the very simplicity of the prescription will no doubt constitute one of the greatest difficulties in the way of its acceptance and observance. And only a clear appreciation of and firm belief in the doctrine that practically consumption is communicable through dried expectoration, and nothing else, will save the practice from ridicule. It is for this reason, among others, that a properly organized Board of Health is necessary, having legislative authority to act in all matters pertaining to the public health, to

enforce the observance of sanitary laws, where the people are dilatory or indifferent.

I cannot enter here into the important subject of hospitals, homes and sanatoria for the isolation, care and treatment of consumptives. That is another story, the narration of which, along with other matters of public interest, must be reserved for a future occasion.

In concluding, ladies and gentlemen, allow me to thank you for the patience and attention with which you have listened to this address, while I have endeavored to present to you in its true light, the light that has been shed upon it by scientific investigation and experience, the danger of the unrestricted entertainment of tuberculosis patients in our mountain health resorts. I leave it to you now to decide what is best to be done under the circumstances to avert this danger, a danger which is real indeed, but not unavoidable, if the simple but necessary means to avoid it be taken at once.

The sceptics tell us that to hope to control consumption is the idle dream of sanitary enthusiasts, far-fetched and utopian. But already the mortality from this malady has been considerably reduced throughout the world, as the result of our better knowledge of the disease and the adoption of improved sanitary methods, though carried out on a limited scale and in an irregular manner. It is only reasonable to expect, therefore, that legislative and general cooperative action will accomplish far greater results. This is an age of combinations and alliances of all kinds. Why should we not combine the vast interests of doing good in this great work of practical sanitation for the benefit of humanity, with the full belief and conviction that the day will come when this wide-spread and fatal scourge may be completely eradicated?

"O, ye the wise who think, the wise who reign,
From growing commerce loose her latest chain,
And let the fair, white-winged peace-make fly
To happy havens under all the sky,
And mix the seasons and the golden hours,
Till each man find his own in all men's good,
And all men work in noble brotherhood."

Natural Selection and the Race Problem.

By Benj. K. Hays, M. D., Oxford, N. C.

So much has been written on the subject of late, so near does it come to the heart and home of each one of us, and so long have the older men present been struggling with the problem, that I doubt not that in its practical bearing many of you are more familiar with it than I am.

In a scientific discussion prejudice can have no place.

It is true that racial prejudice is a factor—perhaps the chief factor—to be considered in the settlement of the problem, but if we desire to reach the truth we must forget for a time that we are men of one color, discussing men of another color.

It is not my purpose to approach this question from the standpoint of a moralist, nor to advise men as to their duty.

For the cruel treatment, which in rare instances, negroes have received from the hands of white men, I have no defence, nor am I ignorant of the fact that cruel treatment of a brother, though his skin be black, brutalizes the man who inflicts it.

The black man has formed no trust on the crime and ignorance of the South.

I shall not undertake to say what relationship between the two races ought or ought not to exist. With the doctrinaire who points the way to ideal conditions I have little patience. The moral attitude of the two races, relative to each other, will never be superior to that of the races individually.

When New York society and Pennsylvania politics have become pure; when the chicken roost and the sheep pasture have ceased to be a temptation; and when the moral teachings of Jesus of Nazareth have become the rule and guide of men's daily lives, then, and not till then may we hope for absolute justice between white men and black men.

Personally, I am an advocate of industrial education, and endorse every word that I have heard fall from the lips of the Educational Governor of North Carolina, and every line that I have seen from the pen of the great Colored Apostle of industrial education.

The object of this paper is to examine the conditions as they are; to account for them by natural causes; to inquire if those causes are still operative; and if possible to note whither they are tending.

At the time the negro received his freedom in the South there was a book in circulation in Europe which was being read and pondered upon by thinking men. It was destined to become the most notable production of the nineteenth century; it revolutionized human thought, and in the light of its teachings all institutions, both human and divine, had to be studied anew.

I refer, of course, to Darwin's Origin of Species.

The universal law of evolution had been announced by Herbert Spencer in the early fifties, but it was not until 1859, with the appearance of Darwin's book, that the theory of Natural Selection was born.

The greatest intellectual contest that the world has known was called forth by this book. The minor details of some of its

teachings have been modified, but scientific men of to-day who differ with Darwin, differ chiefly in this, that they carry the theory a step further than its author. To use the language of LeConte, they out-Darwin Darwin.

And yet, so far as I have been able to learn, no man has made a clear application of the law of evolution to the two races in this country. Heredity plays an important part in the law of evolution, and this phase of the subject has been dealt with by the masterly hand of Dr. Paul Barringer, but the "Struggle for Existence" between the two races and "The Survival of the Fittest" are themes that have been strangely neglected.

Before undertaking to make this application, let us clearly understand what is meant by evolution, and just what part, in this great law, "Natural Selection" is supposed to play. For just as sure as the planets are held in their orbits by the law of gravitation, just so sure will the future inhabitants of this soil be but the products of evolution; and this with entire disregard to any man's opinion of what they should be, or with any set of men's determination as to what they shall be.

Evolution has been happily defined by John Fiske as "God's way of doing things." "It is simply history, a history of steps, a general name for the history of the steps by which the world has come to what it is." (Drummond). "It is continuous progressive change, according to certain laws, and by means of resinent forces." (LeConte).

It does not undertake to account for the origin of life upon the globe, but, given the creation of a living being, with powers of reproduction, and we will find a continuous progressive change in accordance with definite laws.

This is Evolution.

No species can go on reproducing itself without finding some natural check upon its growth; otherwise that species would soon over-run the entire globe. In the case of animal life it must contend with heat, cold, drought, moisture, disease, famine and the enemies to which it falls a prey.

The animal which is best able to meet the conditions—best adapted to its environment, which, because of strength, color or habits, can procure its food or escape its enemies is the one which lives. This is "The Survival of the Fittest."

The survivor transmits its superior traits to its offspring, and the slight variability, added to by countless generations, finally evolves a new species. This is "Natural Selection."

If we accept the theory, (and I without reservation do accept it) that all animal life descended from a few primitive forms, we are able to trace, step by step, every stage in the development of the higher forms of life. For, as a tree in its upward growth, throws off limbs that never rise above their place of origin, so, animal life at every stage has thrown off developed species, and these species have moved down the ages practically unchanged, while the highest branches have continued steadily onward in their growth. It is not believed, nor has it ever been taught, that any higher form was evolved from the offshoot of a lower form.

Evolutionists no more believe that man descended from a monkey than that the highest twig of an oak grows from the tip of its lowest limb.

Notwithstanding the continued progress in the higher species, every individual must reproduce, in his own history, the entire history of the race. The ontogeny is a repetition of the phylogeny.

Every man is once a single cell, and so much, in this stage of his development does he resemble certain protozoa that only the most expert microscopist can distinguish between the two. Later in embryonic development, man passes through the gastrula stage, and here, in shape and structure, he resembles the chalk sponge.

And so, through the various stages of embryonic life, we find man resembling various animals. At a certain stage it is impossible to distinguish the human embryo from that of a chick; later when it appears distinctively mammal it is still indistinguishable from a pig. No one can watch the antics of a chimpanzee without being impressed with its similarity in action and mentality to a four or five year old boy. At birth, and for some years after, Shakespear had less intelligence than a monkey, while St. Paul knew less difference between right and wrong than a pointer dog.

If dogs and monkeys were trained through countless generations there is no telling to what extent their intelligence might be developed, but it is certain that a dog would never become a monkey, nor a monkey a man. Moreover, if left to themselves, it is doubtful if either dogs or monkeys would ever attain to a higher stage than that which they now occupy.

I have given this hurried and imperfect sketch of development because I believe that the same law is operative when applied to the various races of men.

There is a certain point at which races and nations have seemed grown. They pass into a lethargy or decadent period, and from this they never advance, while the trunk of development passes on in certain vigorous individuals, who found a new nation or be-

come the progenitors of a new race of men.

The river-drift man once inhabited Europe, chipped his stones and passed away. The Iberian came, and his weapon was of polished stone, but when the Aryan appeared the Iberian melted before him.

The Aryans were the progenitors of the Anglo-Saxons, and wherever this race has gained a foothold the land is in its possession to-day.

In his early struggle for existence man contended with the heat of a tropical summer, and with the cold of an arctic winter, with famine and pestilence, with the wild beasts of the field, with the many diseases to which he was subject, with the difficulty of supporting his young, and, most of all to be dreaded, with his fellow-man.

With the many barriers to development which nature had placed in the way the Anglo-Saxons contended successfully. Of their struggles with other races I will quote from Major Robert Bingham:

"They touched the Celt, and in a hundred years there were no Celts except in the mountains of Wales and in the mountains of Scotland. The Norman touched them, and the Norman was absorbed and his identity disappeared. They came in contact with the Red man in America; and, as the Celt vanished away at the touch of the barbarian Angles and Saxons, so the Red man vanished away at the touch of their descendants, the civilized Anglo-Americans. This same man touched the Frenchman from the mouth of the St. Lawrene to the mouth of the Mississippi, and the Frenchman's power in that vast region is with last year's snow, and what was once French America is now the heart of Anglo-American civilization and power. The yellow man touched the Anglo-American and has been excluded more by the unwritten law of race hostility and race antagonism than by any formal acts of Congress. And the Anglo-American has just touched the Spaniard and the Spaniard has vanished from this hemisphere."

History is one continuous record of the struggle between races, nations and political parties; between religions, languages, and schools of philosophy; between artisans and tradesmen; and with sorrow do I record the fact that the struggle is no where more keenly felt than among the members of our own profession.

It is the most distressing feature of our civilization, that while Christianity has enabled us to become a great nation, and has made of men good citizens, good neighbors, kind fathers and faithful friends, yet, in the treatment of competitors men seem to feel no moral restraint. The millionaire who gives largely to his church, endows a college, builds an asylum, and does not see a sparrow fall to the ground without compassion, scruples not to wreck a thousand homes by a financial transaction.

Such is the race with which the black man on American soil has to contend.

And the black man—what of him?

As he was known to the ancient Egyptians, to the Greek and to the Roman, even so is he found in his African home to-day. At the dawn of history he was fully developed, and during the past three thousand years he has not made one step of progress. Independently, he has shown no power to advance. The superiority of the American negro to his African brother, who is a savage and a cannibal, is due to slavery, and could have been acquired in no other way. Men who ascribe debased characteristics of the negro to slavery show a short-sightedness that is pitiable. The present attainment of the American negro has been solely the result of his close personal contact with the white man.

Nor should it be forgotten that most of the leaders of the negro race are men with Anglo-Saxon blood in their veins who partake more of their Caucasian than of their Ethiopian lineage. Some of these are splendid men, who are making heroic efforts to elevate the negro race. Others of mixed blood are vicious and turbulent. These are the men who create trouble.

Left to itself, a negro population lapses into barbarism. The Republic of Hayti is an example of this. A recent writer in the World's Work has thus described it: "A government without a practical school system, a government whose expenditures are seldom made for improvements, a government without adequate asylums or hospitals, a government of petty thieving, continual insurrection, promiscuous poisoning, and counterfeit finance—this is the Negro Republic of Hayti, the land where the black rules."

In the Popular Science Monthly,* a writer on ethnology says: "Only in single exceptional cases have leading spirits ever risen from out these lower casts; and where the separatist movement has been confined to these colored primitive races, it has led not only to cutting loose from the mother country, but also to a more or less complete renunciation of European civilization."

In this country, just so far as personal contact with the whites has been withdrawn, to that extent has the negro retrograded. It is a serious question if he has not relapsed more during the past forty years by losing the intimate association of the white man

* August, 1889, "Ran Questions in Philippine Islands,"

than he has gained by the $200,000,000 that have been spent for his education.

The negro has been domesticated, but the question is, will he ever become an integral part of Anglo-American civilization.

Having noted the contrast between the two races, let us ask, why do men of Anglo-Saxon blood, who have never yielded a foot of soil that they once possessed; who have never deigned to mix with a conquered people, but have established independent civilizations in the home of the Indian, in India, in Australia; who have robbed the Boers of their possessions; who have defied arctic snows and tropic suns, and have penetrated to the remotest islands of the seas in search of new lands to conquer—why does such a race cherish in its bosom one of the humblest races of earth? To my mind the answer is clear—there has been no Struggle for Existence.

The black man has never been a competitor, but has always been subservient to the white race. And just so long as he remains subservient his position is secure, and just so soon as he becomes a competitor his fate is sealed.

It is not necessary that he should work for a white master, or remain a menial. In a country whose natural resources are undeveloped, as is the case with the South, a man may serve a municipality or a State. In North Carolina, for example, there is need of men to develop her farms and to work in her factories; there is need of day laborers, carpenters and masons, dressmakers and laundry women, and so long as the negro renders this service he is protected by the white man as a gardener protects his hot-house plants.

But even here the Struggle for Existence is felt, for wherever you find a white man whose work brings him into competition with a negro, there you find a man who cherishes a bitter hatred of the entire negro race; and were it not for the protecting arm of the non-competing white man these rivals of the negro would turn upon him in a single night. It is this class of men, who, when their passions are so aroused that they can be no longer restrained, compose lynching parties and create race riots.

Only once in our history did the negro become the competitor of the white race as a whole, and that was when he aspired to political honors. The political position of the negro to-day is but a forecast of what his racial position will be when he undertakes to realize his dream of commercial, intellectual and social equality.

The recent agitation of the race problem, making all due allowance for the political capital created out of race prejudice, has in my judgment been due to this, that the negro has, in a degree, ceased to be the useful artisan of which the South stands solely in need, and has divided into two classes—those who aspire to social equality with the whites, and those who have retrograded, and because of crime and vagrancy, have become a menace to civilization.

Prof. DuBois, one of the most scholarly negroes in this country, in a contribution to the Atlantic Monthly,* tells of recent attainments of many negro graduates. He says that the attainment of the few is the hope of the many, and that this flame of hope can by no possible human agency be extinguished.

And yet, if every American negro could, by some miraculous power, be endowed with Prof. DuBois' scholarship, or if every tenth negro could have this priceless gift, the two races could no longer occupy the same soil. Every page of human history points to the fact that one or the other would have to go, nor can we doubt that the exodus would take place amid scenes of uproar and carnage.

It is not claimed that the white man would have a greater right to the soil than the negro, nor that there would be any possible justification for the course that he would pursue. I have seen no vindication of the course pursued with the Indian; yet, I am convinced that if the negro were in a position to make a contest for supremacy that the tragedy enacted with the Indian would be repeated.

And if this laudable advancement on the part of the best of the negro race portends his destruction, how much greater his danger from that vicious element which renders the home and highway unsafe for unprotected women.

In the face of the fact that swift and violent death follows each violation of a white woman, the crime of rape is on the increase. Unknown a generation ago, its alarming frequency at the present time can be accounted for only by the false hopes of social equality on the part of the lowest negroes. They are unwilling to pay the price of industrial advancement, incapable of mental or moral elevation; endowed by nature with a lust closely akin to that of the brute creation; without love of home or country, they can, by the single act of ravishing a white woman, gratify every passion of their depraved natures.

This class of negroes is, relatively speaking, very small, yet it is on the increase. Unless checked there will surely come a time when the entire negro population will be made to suffer for the crimes of the few.

If, by the majority of votes of the South-

*September, 1902.

ern white men the negro might be transported to, say the Philippine Islands, undoubtedly he would be permitted to remain with us. Personally, we like him, and the South needs his labor.

Charles Sumner was approached by a negro asking alms. He replied: "I am interested in you as a race, not as an individual."

In the South men are everywhere interested in negroes as individuals, while they care little for the race. There are few of you here to-day who have not given largely to negroes, nor do you count it a disagreeable task to ride through the country on the seat with your negro driver.

The disinclination of the Northern white man to come in personal contact with negroes is the result of racial prejudice, while the Southern man feels for his domestic an affection born of mutual dependence. But the old affection and the mutual dependence are on the wane, and no matter how much we may regret the fact, the races are drifting apart.

And this aspiration for social equality on the part of the better class of negroes, this increase of crime on the part of the worst, and this gradual loss of kindly relation between master and servant, point unmistakably to a relationship of the races in the future unlike that which has existed in the past.

Students of ethnology tell us that the process of civilization is fixed by immutable law. It can no more be hurried in its course than a glacier or the current of a river. It must pass through stages as definitely fixed as the seven ages of man.

The various forms of society, religions and governments that have existed in the world have not been the outcome of chance, nor have they been the special creation of any set of men. They have existed because they were the only forms that could exist at certain stages of development. Like stages of development have been characterized by like institutions. Institutions have reacted upon inhabitants, and through long periods of time have developed definite forms of civilization.

The life of a civilization, like that of an oak, depends for its strength upon the depth and breadth to which its roots are struck.

In Africa the undisturbed negro is in a savage state. Contact with the whites in this country has given him a laudable desire for civilization. But, for this boon, other races have paid a price at every step from which the negro cannot hope to escape.

The white man may divide the product of his civilization, but the civilization itself was moulded in the alembic of nature, and cannot be transferred by human hands.

This is a point which many well-meaning friends of the negro have been unable to grasp. They develop upon a hot-house plant a foliage that invites wind and storm, not realizing that their misdirected energies tend to destroy the object of their solicitude. A grafted pseudo-civilization cannot stand the shocks of time.

Nearly a thousand years have passed since Anglo-Saxons wrested Magna Charta from the hands of their king—years of slow development in sweat and blood. Of the twenty-six barons who signed that paper, only three could write their names. There are thousands of negroes in this country to-day who have had the advantages of modern education, but could you find among them twenty-six men who would be the peers of those grim old heroes who faced King John?

And now a word on the history of the South.

The institution of slavery which early found a foot-hold was a bar to development. In the first half of the nineteenth century each decade found the northern States growing in wealth and influence, while the slave-holding States were practically at a stand-still.

Then came the devastating cloud of war that cost the South a million of her most hopeful sons. In the two decades that followed she faced a question of existence, not of advancement.

At this time the great undeveloped West proved a veritable Utopia to emigrants, while Northern cities offered inducements to talented young men. The South was a slough of despond, and many of her sons left their homes to try other fields.

To-day the conditions have changed. There are no more unoccupied lands in the West, and the cities of the North no longer offer opportunities for easy money-making.

But there has been an awakening in the South. Her recent advancement along industrial lines has been such as to excite the admiration and wonder of the nation. Northern capital has turned in this direction, the price for labor has advanced, men of talent find remunerative employment, and no man who is willing to work need remain idle. This means that the resources of the South will be developed; great centers of wealth will gradually arise, every form of industry will be pursued; and there will be a rapid increase in population.

But, save in the cotton fields of the far South, the negro has failed to meet the conditions. While his misdirected energies have been spent clamoring for social and political equality, the monopoly which for nearly three centuries he held upon Southern labor has slipped from his hands. The time

is not far distant when he will enter upon a Struggle for Existence with men of Anglo-Saxon blood.

What will become of him?

All talk of transportation is idle. For white men to abandon any section of this country and leave it to negroes would be a reversion of the trend of history. A general uprising in deeds of slaughter would destroy our civilization, not that the whites would have aught to fear from the defenceless negro, but because men cannot commit murder and remain civilized.

In the face of these opinions, recognizing the cry of the negro for equal rights with the white man, I stand convinced that the two races cannot occupy the same soil on terms of equality.

To do so the laws of nature must be changed, and race prejudice buried; the law of development broken, and savages changed into civilized men at a bound; the laws of Natural Selection rendered inoperative, and the weak contend equally with the strong in the Struggle for Existence.

But these laws will not be changed, and even while we are talking they are silently solving the problem.

The more advanced a civilization becomes, the greater is the opportunity offered for immorality. If that civilization is to endure there must be a commensurate power of resistance on the part of the individual

Our civilization offers the negro alcohol, gambling hells and venereal diseases, but it does not give the power to resist temptation. Our civilization offers individual liberty, but liberty to the ignorant means license and crime. Our civilization offers industrial advancement but a refusal to comply with the conditions means poverty and disease.

Formerly the negro was protected from every varying wind by a beneficent hand. The slave-holding class of whites felt a moral responsibility for him. This class is passing away.

The North regarded him as a downtrodden race, and took a peculiar interest in his welfare. This interest will not live through another generation. But when these friends of the negro are gone, and sectional strife in this country shall have been forgotten, racial prejudice will live then as now.

The negro must work out his own destiny as other races have done. This civilization, vicariously attained, is not yet his own.

Large numbers of negroes are moving North, where they will never become a factor. Others are being crowded from fields of industry by labor organizations, and the growing unwillingness on the part of the white labor to work with the black. Still others are unwilling to work and are parasites upon the towns and counties. The criminal class is on the increase and our prisons are crowded. The paupers are on the increase, and our alms houses are crowded. Insanity is on the increase and our asylums are crowded. Their places of abode are becoming more unsanitary, and disease is quietly yet relentlessly doing its work.

A few weeks ago a negro man called at my office with his daughter. Her hopeless condition was apparent at a glance.

"How many children have you lost?" I inquired.

"Seven."

"What was their trouble?"

"They all died of consumption," was the reply.

Many such instances could be related by every Southern physician, yet consumption was unknown among the negroes in the days of slavery.

"Tuberculosis," said Dr. Hunter McGuire, "will exterminate the negro race in this country."

The death-rate of the negro is already twice that of the whites as a whole, while in towns and cities it is nearly three times as great, and the proportion is constantly on the increase.

If it is answered in the face of these conditions that the negro population has doubled in forty years, it should be remembered that he has lived in an undeveloped country; that he received help from white men, both North and South; that the willing service which he rendered was everywhere in demand; and that in his sphere he was without competition.

Even then his increase was not commensurate with the whites, and was less than his own in slavery.

The negro of the future will labor in a developed country, not only unsupported, but in competion with white men. He must adjust himself to a civilization which he cannot comprehend, and face racial prejudice where formerly he found sympathy and aid.

That the great mass of negroes is quietly and contentedly at work is true. True many of them have acquired property, built churches, school houses, and other civilizing institutions. For this class I believe the immediate future is bright and hopeful. But for that class who hope through education to live, not only without work, but upon terms of social equality with the whites, for the vicious, tuburlent, criminal and pauper class there can be but one future.

The anomalous position of the negro is not the result of chance, but of natural law. He was sold here a slave as other slaves

have been sold to other countries. In the South he aided the white man in his Struggle for Existence, and was protected. At the North he was of no aid, and his services were dispensed with.

His emancipation was inevitable. That the method employed was the result of a blunder need not now be discussed.

When freedom came it was inevitable that the strong, intelligent, law-abiding race should control the weak, ignorant, lawless race.

History records no instance in which these two races have become amalgamated, nor lived upon the same soil upon terms of equality; nor does it record an instance in which the African, by any course of training has become an integral part of an advanced civilization.

The weak has ever been dominated by the strong, and where the strong cannot control it will destroy.

As long as a weaker race will render service, it will be protected by the stronger.

But whenever and wherever the weaker becomes a competitor of the stronger, the Struggle for Existence will be brief, and the relentless hand of Natural Selection will place the weaker in the list of those that are numbered with the past.

Tuberculosis of Bones and Joints—Modes of Infection—Cases and Specific Treatment—Surgical Cases Must Become Less.

By J. R. Briggs, M. D., House Physician to the Briggs Sanitarium for Consumptives, Dallas, Texas.

Thanks to the research of recent years all those affections which has thereto been characterized as caries of the bone, spina ventosa, tumor albus, fungus, and strumous arthritis are found to be all alike tuberculous. This advance greatly simplifies methods of practice.

The identity of the etiological factor in these diseases was first suggested by Koch and later on was demonstrated by Damsch, by inoculation experiments on animals, whose work was fully verified by many distinguished pathologist. Just how the tubercle bacilli reaches the bones of the metatarsus, metacarpus, superior maxilla, and the bones at the base of the skull, ribs, sternum and the shafts of the long bones is not yet fully demonstrated; yet, that such infections are secondary is generally conceded; direct bone infection, by traumata, being the only exception. Cornet claims to have demonstrated on animals the possibility of cutaneous infection and that such infections may lead to the various forms of tuberculosis; the germs being taken up at the point of ingress by either the vascular or lymph system, by which they may be carried to any part of the body. It is readily seen that the virus may reach the bones by either route. Behring, in his recent startling theory, asserts, with much emphasis, and not without reason, that practically all infections are primarily from a bovine sonrce, the bacilli being first received into the system through milk, from tuberculous cows, during infancy and early childhood. While his theory is quite contradictory to the generally accepted teachings of to-day, yet, to my mind, he presents, in this new view, the only plausible reason accounting for what we call "heredity," "predisposition," "discrasia" or the so-called "pretubercular" condition. Nothing short of infection during the first years of life can possibly account for this variously named condition. Just what the potential factor is, which distorts the bodily form, even to the shaping of the finger nails, giving to the subject a greatly weakened resistance, is nowhere so clearly accounted for as by Behring. He demonstrates, by experiments on animals, that the mucous membrane of the very young is almost destitute of protective epithelium; in fact, that it is sponge-like and permits the ready passage of the bacilli into the intestinal walls, from which they are readily taken up by the activity of the leucocytes, or carried to any organ by the lymph channels, where they may remain in a latent state during the period of bodily development. Since tuberculosis of cattle is demonstrated to be almost universal, especially in the aggregations of herds of twenty or more, and since milk is the principal food in infancy and childhood, it is quite logical to conclude that this is the greatest source of danger with which the race has to contend. As tuberculosis kills one out of every seventh person dying from all causes, almost universal infection is not at all unreasonable. As a prophylactic measure against this dreadful scourge, Behring proposes "immune milk;" all cattle to be immunized by protective inoculation with live bacilli during the first months of life. See "Suppression of Tuberculosis," by Behring. The exceedingly slow cycle of development and spread of certain localized tubercular lesions in bone is unquestionably from the small number of bacilli, it being impossible, in some instances, to demonstrate their presence; just as in Hodgkin's disease, which I believe is always tubercular, the adenitis assuming a peculiarly collossal type of hyperplasia.

Whatever be the method or time of infection, we know we are daily confronted by a multiplicity of tubercular manifestations in various regions of the body; and

what we, of long years of practice, used to regard as caries, "traumatic," "idiopatic," or otherwise, is almost invariably tubercular. The question of greatest concern to the practitioner is: What is the best method of treatment in all such cases? If tubercular lesions of bones are neglected until serious inroads are made we must then look alone to surgery for relief. Even, however, with all the skill and ingenuity this advanced branch of medicine can render us it frequently fails to do more than to relieve, for the time, the offending localized lesion, leaving the primary etiological factor to present, on least provocation, subsequent manifestations of the disease which must ultimately, in many cases, destroy the life of the patient. That there is a cure in most early stage cases of tuberculosis, without surgical interference, many good and able men have fully demonstrated. Having seen such recoveries, I cannot doubt the evidence of my own senses. My cases of bone tuberculosis have not been numerous, such cases usually being referred to a surgeon, but I have treated a sufficient number to justify me in the method I use. Of course, no one expects any therapeutic agent to remove spicula of bone or restore necrosed tissues; all cases of tuberculosis, whether bones, glands or lungs, should be cured before such destructive processes occur.

In order to acquaint those who have not given this special line of work much attention I give here three cases of bone tuberculosis occurring in the course of five years practice; these being the most interesting cases of this character found in several hundred cases of pulmonary tuberculosis treated at the Sanitorium:

Case I.—W., male, aged 24, farmer, gave as family history: Father and mother, together with all brothers and sisters, died of pulmonary consumption; (I give this not to show "heredity," but chances of infection) his parents having died when he was eight years of age and other children subsequently. His personal history showed he had been in good health up to two years previous, when his right leg was broken four inches above the ankle, by a horse falling on it. The skin was not broken and he made a fairly good recovery, being able to walk without support in three months. The bony ring, however, thrown out around the fractured points of the tibia and fibula, was enormously large and with the passing of the months did not disappear; in fact, remained quite large up to two years afterward, when I saw the case for the first time, he consulting me for a cough of nearly one year's duration. Examination of chest revealed excavations in apices and the sputum was surcharged with bacilli. He was put on the specific toxin of the tubercle bacilli—"Watery Extract of Tubercle Bacilli, von Ruck,"—which remedy was given in rapidly increasing doses. The first noticeable reaction, on the 35th day, was in the bony ring at the point of fracture, which became quite painful, sore and sensitive to touch, this local reaction being followed by a sudden rise in bodily temperature of 2.5 deg. F., chilly sensations and rapid pulse. On withdrawal of the remedy all reaction symptoms disappeared, and later on the bony ring became much less. On again giving large doses other but much less reactions occurred, which eventually led to complete removal of the large bony deposit. At the end of five months his cavities had become dry with arrestment of the disease and restoration to good health and a gain in weight of 25 pounds. The inevitable conclusion is that when he happened to the injury, although his health was excellent, he had, nevertheless, latent tuberculosis; and, all that was necessary to fan it into open display was an injury or some other cause lessening the powers of resistance. The point sought to be made here is the therapeutic action of the toxin on tubercular bone.

Case II.—Mrs. D., aged 34, widow with three healthy children, family history good, so-called "heredity" playing no role in her case; consulted me, together with several other physicians of this city, as to her health in general, which had been very bad for the past two years. The great value of this case resides in the fact that it represents a perfect type of a very large class of cases met with daily by the general practitioner. Personal history: Her health had always been good up to two years previous, when, from a fall, she injured her right knee; since which time she had to go on crutches. One year after the injury (her general health having suffered much therefrom) she was taken with a slight cough, which all remedies failed to relieve. She lost flesh and was for the next year an invalid. On examination I found the knee-joint swollen and tender with several glandular nodes surrounding and extending underneath the patella. In the right apex, just under the clavicle at the sternal border, I found a small moist cavity which seemed to be perfectly circumscribed. Sputum examination revealed a small number of bacilli. Having thus made a diagnosis of pulmonary consumption, it was only one step further to the fact that the diseased knee was also tubercular.

The patient was put on the specific treatment, as an out-patient, but was given no drugs whatever. The remedy was pushed heroically for 30 days; this happened five years ago and before I had learned that its

reaction, in localized tubercular lesions, could be serious if pressed too rapidly. All her symptoms were rapidly disappearing and with a renewed strength and comfort she was gaining one-half pound daily. Seeing these wonderful results, I lost my head and still further rapidly increased the dose of the germ extract until the fortieth day. Having given on the day before 0.6 c.c No. 100, I was called to her the next day and found the knee greatly swollen and so painful as to rob her of sleep, with a temperature of 103 deg. F. I withdrew the remedy, but the acute inflammatory condition of the knee and the fever continued to grow worse and nothing but large hypodermic injections of morphine gave any relief, her temperature reaching at times 105 deg. F. During the first month she had about abandoned her crutches and now here she was "worse than ever" and wanted "no more of the stuff." Really, I could not blame her, and being glad to get rid of the case, I sent her home after she had endured ten days of intense suffering. I heard from the case at the end of three months and learned to my surprise that her knee was "well and her health better than during the last two years." I did not then know just what had happened, but now it is quite plain. As her cough, which was greatly benefited by the forty days treatment, was growing bad again, after six months, she returned to me for treatment. While I greatly feared to give her the extract of tubercle bacilli again, yet, knowing nothing else to do, I went up on her doses very cautiously at first and later reached the previous maximum dose without any ill effects. At the end of four more months treatment by the hypodermic injections of the specific—I use the word "specific" here in its strongest known sense—the dose of 1.5 c.c. No. 100 was reached and kept up every other day for another month, at the end of which time she had gained, in all, 32 pounds, no cough, no expectoration and no more pain or swellidg in the knee. The cavity was dry and practically obliterated. Her knee was strong and she needed no support. Her temperature and pulse being normal and her health excellent in all respects, she was dismissed "recovered." Two years later she was married and is now, nearly five years since she was treated, in perfect health in all respects, with a bouncing baby boy nearly two years old.

Here is a valuable lesson for any who doubts the specific action of the culture products; as was the violent reaction, I had thoughtlessly caused, proved a lasting lesson to me. Yet, after all, my ignorance of the proper dosage cured the knee much quicker than a more conservative course would have done, but with needless suffering. But for this treatment necrosis would surely have occurred with the probable loss of the limb and final loss of life by pulmonary consumption.

Case III.—L., aged 13 years, family history good, was brought to the Sanitarium by his father and family physician, for a diagnosis as to the character of a greatly enlarged and deep bone infiltration of the middle joint of the right middle finger, which had been diagnosed by a surgeon of an adjoining city as tubercular, and who advised speedy amputation of the entire finger. The boy was delicate, very slender, looked very pale, mucous membranes blanched, and was under weight for one of his age—weighing only 90 pounds. The enlargement involved the joint principally, but really extended to the entire finger, the joint measurement almost equaling the size of the boy's wrist. The swelling was tense, red, painful and very sensitive to touch; it being quite manifest that the origin of the affection was in the bones proper, and not external thereto. His temperature was 99.4 F. and pulse 104. Being stripped the boy was examined from head to foot, a most important thing to do in all such local affections, but which is too often neglected.

The examination, by palpation, revealed the fact that the boy had glandular tuberculosis from head to foot; the cervical axillary and inguinal glands being very much enlarged; the armpits and groins, when caught up, giving to the fingers the sensation made by grasping a sack full of large and small marbles. Lungs were clear. A diagnosis was readily made of diffuse glandular tuberculosis, with secondary infection of the bones of the hand. To have amputated this finger would, as any one can see, have been like going down stream to purify the fountain head. Yet, this is just what is being done daily by our enterprising surgeons all over this country.

This case entered the institution and was put on the specific treatment, the initial dose being *very small*, and the increase in dosage made with *great caution*. He was given no other remedy; he was fed rich food, such as rare steaks, cream, raw eggs, and put under control. In 30 days, without any marked local reaction, the imflammatory symptoms were much *less* and at the same date the glandular enlargements were much *larger*. At the end of 60 days the finger had reduced one-half in size and was no longer painful or even tender to the touch; the glandular infiltrations also were beginning, by this time, to show a very decided decrease. At the end of 100 days the finger was practically well and about normal in size with good use; the glands, while still

perceptible, were practically reduced to a normal condition. His temperature and pulse were normal and his general health excellent, he having gained ten pounds. We are keeping track of the case and at this writing, six months later, he is gaining weight and developing rapidly.

This case, at least the glandular element of it, represents the largest class of all tubercular affections. Any physician, who has not had his attention called to the fact in practice, will be greatly surprised at the large number of children, most of them, too, in apparently perfect health, who have infiltration of the lymph-glands which will react promptly under minimum doses of tuberculin. While the purpose of this paper is to show the curability of tuberculosis of the bones and joints with toxins of tubercle bacilli, the central aim is to create a deeper interest in the primary gland lesions which lead to such bone diseases. We must remember that practically all tubercular affections of bones are preceded by infection, with proliferation of tubercle and caseation; and, that from such caseaous areas eminate the virus which finds its way to slight traumata, through either the lymph or vascular system. Our duty clearly leads us to the discovery and elimination of such latent areas before they are fanned into a diffused infection by injury or some intercurrent disease.

By keeping a sharp lookout for all gland infiltrations of a tubercular character, especially in children, I have been enabled to immune, by this specific method, 47 such cases, during the last five years, an account of which is published elsewhere.* The objects aimed at, in such cases, being to break up, by local reactions, the tubercular areas; and, by an increased constructive metabolism, resulting from the cell stimulation of the specific, render the case immune. Just in proportion to our knowledge of latent tuberculosis and the painstaking care with which we apply ourselves to the use of this immunizing remedy, so, in proportion will we cure our patients, who have hitherto been referred to the surgeon. Surgical cases we will always have with us, but in the light of well known clinical facts, operative cases should be greatly reduced. Unfortunately for the profession the blunders and failures, in the early use of tuberculin, is yet keenly felt and a general feeling of skepticism prevails, regardless of the fact that we now have a form of the culture products which is safe and highly efficient.

* Southern Medicine and Surgery for March and April, 1905.

"Surgical Obstetrics," Unusual High Temperature with Report of Cases.

By Frederick Meagley, M. D., Daytona, Fla., Secretary of the Volusia Medical Society, Member of Florida Medical Association, American Medical Association, Surgeon to "The Daytona Hospital," etc.

Taking the temperature during labor is not common practice, and when done will often alarm the accoucher by the great height it registers. It is then too frequently considered septic. Too often no careful differential diagnosis is made between septic fever and that caused by "mental excitement."

"The muscular contraction of labor," "Cerebro Spinal Congestion," malaria, etc., I have observed a temperature of 108–109 deg. rectum quickly subside at the conclusion of labor.

However one rare case terminated fatally on the third day with a temperature at no time registering below 106 deg., and at death 109 deg. per rectum. Though not actually belonging to the field of obstetrics, this case will serve admirably well to illustrate my subject.

Case I.—Miss M. C,, age 16, menses appeared at 14, scant, irregular. Had missed three months. Family physician, Dr. C. S. M. diagnosed pregnancy. Being accused of this she became intensely excited, soon developing a wild mania. Temperature 106 2-5 deg. when I was summoned to consider the advisability of producing abortion. Examination revealed a mistaken diagnosis. The uterus being empty and almost infantile. She became unconscious and died on the third day, with a temperature of 109 deg. The coroner reported the "cause of death" to be "coagulation of the fibrin at the base of the brain."

Case II.—Miss M. P., age 20, single, previous health good. I was called by Dr. H. C. Haskins. Found the patient intensely excited. Temperature 108 1-5, cervix dilated and labor well advanced; but apparently making little progress. After the usual preparations I completed dilatation and delivered a five months foetus, thoroughly cleansed the uterus and packed it lightly with borated gauze. Her mother was aware of her condition, but her father was not. It was surprising to observe how quickly she recovered her mental control when the foetus was removed from the house.

Temperature taken one hour later registered 102 deg., and three hours later normal. Recovery uneventful.

Case III.—This patient I attended some fourteen years since, and having no record, must report from memory.

Mrs. W., age 44. Married. Mother of

four children. Health good until the beginning of the last pregnancy. Then suffered with neurasthenia, insomnia, anorexia, etc. At near term she developed a suicidal mania. At term labor was completed in eight hours without difficulty. The temperature during labor and "the lying-in period," registered from 101 deg. to 105 deg. Her mental condition became more and more agitated until a typical "puerperal" insanity developed. Her death occurred in three weeks from exhaustion. This woman (white) gave birth to a negro child.

These cases demonstrate that a type of non-septic fever; serious or fatal in its result may develop in the pregnant, or woman in labor. In which no cause other than mental can be discovered. Case I. strongly emphasises the necessity of using great diplomacy in accusing a young girl or unmarried woman of being pregnant. One must be absolutely certain of his ground. This girl in the presence of her parents was compelled to a vaginal examination by a strange man (though a physician). Then the startling, gruff, unsympathetic accusation. The horror of exposure, and the thought of disgrace to herself and family, gave her a mental shock with fatal result. I believe we should practice and teach "*never to make a digital vaginal examination of an unmarried woman without anesthesia.*"

Had Case II. not terminated by early delivery I have every reason to believe it would have resulted fatally.

Case IV.—Mrs. G. M., colored, age 20. Married. Pregnant at about full term. No history given. Developed puerperal convulsions; was attended by a mid-wife for about twelve hours, when Dr. Straughn was called. He found her in an almost hopeless condition, and deciding that immediate delivery was imperative, I was called to operate. Before my arrival (within an hour) the patient became unconscious, pulse uncountable—extremities cold. Resp. 8-10 shallow. Apparently past revival. Administered hypo-strych. 1-10, nitro-glyc. 1-50. Placed an attendant at each limb, with a quantity of alcohol and directed them to rub vigorously; always toward the body. Examination revealed a normal pelvis and organs. A head presentation. No contractions or dilatation of the cervix. Temperature by mouth normal. By rectum 105 deg. The alcohol rubbing was continued. Dr. Straughn injected into each breast ℥viii of normal salt solution at a temperature of 130 deg., while preparation was made for operation.

A few words regarding technic, though not claiming originality, will not be amiss here. I insist on placing the patient on a firm mattress, in the perineal position, with buttocks well down to the edge. The bed drawn away from the wall, to allow room for nurses and assistants. An assistant sitting upon each side of patient, holds the limbs in position. I use a three-gallon irrigator made of sheet zinc with copper bottom, a nipple for attachment of the hose. A thermometer is fixed in a groove registers the temperature. The solution is kept at a temperature of 120 deg. by regulating the alcohol lamp attached to the bottom. It is filled with sterile water, gal. iii, and alcohol, qt. i. The instruments are sterilized by boiling. Gowns, towels, sponges, gauze, etc., are carried with my usual armamentarium, sterilized at my private hospital, and sealed in a metal box ready for immediate use.

The vulva and vagina, are scrubbed with aether soap. Bi-chlor. 1-2000 and finished with alcohol solution from the irrigator. My hands are prepared as for abdominal section.

I begin dilating with a Goodall dilator, until two fingers can be introduced, the hand being first thoroughly lubricated with Lysol solution. The fingers are introduced, one by one, by a slow boring motion, until all are admitted as far as the knuckles. Then by closing the hand, great dilating power is obtained. The hand is allowed to remain in this position until the uterine fibres are felt to relax, or the pain can no longer be endured by operator. Dilatation being complete I performed craniotomy, and delivered with forceps. Thoroughly irrigating the uterus with the hot alcohol solution. The patient becoming conscious to pain, aether was administered the last ½ hour of the operation. The usual after treatment was given by Dr. Straughn. This woman made a rapid and complete recovery.

Case V.—Mrs. S., age 28. Married. History unimportant. Pregnant at near full period. Abdomen very large, and tightly distended. For the last six weeks she could not lay upon her back. Neurasthenic, great mental excitement, much discomfort, with rapidly rising temperature was the cause of my being called in council by her physician Dr. J. P. Esch. Her condition was so alarming that it was decided to operate at once. Temperature at time of operation was 108 deg.

After the usual preparation, and the uterus being sufficiently dilated to admit the hand, the sack was ruptured and fully four gallons of amniotic fluid escaped. I then diagnosed the two-faced hydrocephalic monstrosity; (the photograph of which I am able to present to you) I then did crani-

otomy, and quickly completed labor with forceps. Recovery was slow but uneventful. The temperature in a few hours registering normal.

I hope that my theme will impress you with the necessity of a more careful observation of the pregnant woman. To study more carefully the etiology, and be more accurate in your differential diagnosis. When conditions are discovered that endanger the lives of mother and child. To act promptly and apply the most effectual treatment. The treatment consists of,

1st. Prophalaxis; mental and hygenic;
2nd. Removal of the cause;
3rd. Treatment of Hyperexia; { Hydropathic Cold applications and Medicinal.
4th. Operative.

Prophylactic.—Cases I, II and III. are the most distinct types of fevers in which the mental state should receive careful treatment. Should the physician attending Case I. quietly questioned his patient and noted whether or not she was especially anxious about her condition—studied her nervous and mental state—prescribed a uterine, or general tonic, and waited, the result would be different, she, if pregnant, would have herself confessed the fact, and appealed for advice.

Had the mother of Case II. managed the situation more wisely, she would have succeeded in restoring her daughter's mental equilibrium. What caused labor to have begun I do not know. Had her condition been more favorable, possibly the usual treatment would have arrested it, but under the circumstances, a temperature of 108 deg. and unsatisfactory mental state, nothing but completion of labor was proper. Otherwise the production of abortion would be unjustified only after exhausting all means at temperature reduction, and it then should *continue to increase.*

Removal of Cause.—1st. When justified, the prompt production of abortion, or early delivery. Case IV. (Puerperal Convulsions) was attended by an incompetent midwife until life was near extinct. Leaving the physician to complete a case that should have received treatment months before delivery. It simply illustrates another reason why the public should be protected from her ignorant practice by legislation. We as physicians should at every opportunity educate the public to the danger they expose themselves to by her service.

Treatment of Hyperexia.—1st. Baths—cold sponging. Ice bags, etc.

2nd. Antipyretic Medication. Chloral Hydrate is a most effectual remedy.

Its properties are, Sedative—Hypnotic—Antipyretic—and it lessens *the coagulability of fibrin*, when given in grs. viii. to xv. doses, repeated as necessary. It has proven the most valuable remedy I have prescribed.

Operative Treatment.—1st. A carefully prepared armamentarium should be ready at all times for "hurry calls."

2nd. Operate promptly when the necessity is evident.

3rd. Observe aseptic precaution. No matter how unfavorable the surroundings may be.

Prevention of Heart Disease.

Makkay (Med. Press and Cir.) discusses in what manner the principles of prevention could be applied to various heart affections. The writer regards the removal of all chronically diseased tonsils as of the utmost importance in all persons who had once had an attack of inflammatory rheumatism, whether the heart had been damaged or not. If infection could be prevented cardiac inflammation could likewise be obviated. This statement applied to other affections than rheumatism. The author mentions syphilis and gonorrhea, saying that these diseases sometimes attack the cardiac structures. Pneumonia, chorea, scarlatina sometimes accompanied or followed by acute or chronic endocardial mischief, while influenza or diphtheria may attack the myocardium in an inflammatory way, so as to seriously impair its integrity. Until we could prevent such infections, we could not guard against the cardiac structures being attacked. He discusses chronic myocardial diseases, the toxic influence of syphilis, alcohol, and chronic lead poisoning, fatty heart, and particularly cardiac overstrain, as it is observed in the young, and sometimes in the middle-aged, and apparently healthy, as the result of physical exertion, and mentioned typical examples of this kind.

Duodenal Ulcer.

Moynihan in the London Medical Lancet says that since 1900, the date of his first operation on duodenal ulcer, September, 1904, he had operated on 51 cases. There were 7 cases of perforating duodenal ulcer with 5 recoveries, 22 operations for duodenal ulcer associated with gastric ulcer with one death and 23 operations for duodenal ulcer alone with one death. It is well known that almost all writers remark upon the rarity of ulcer in duodenum, that this is a fallacy there can be no reasonable doubt. He has made his observations and has established the frequency of the condition from the study of the living, whereas text-book authorities obtain their data from autopsy reports. The symptoms of duodenal ulcer in many cases are characteristic and in the writer's opinion it is a mistake to believe the oft repeated statement that a differen-

tial diagnosis between an ulcer of the stomach and one of the duodenum is difficult, the author having in most cases been able to establish it either upon the physical signs or upon the history. Ulceration is ten times more common in the first portion of the duodenum than in the second. Duodenal ulcer may occur at any age. Oppenheimer has collected the records of 15 cases of melena neonatorum resulting from ulcerated duodenum. Duodenal ulcer is said to be more common in the male than in the female. Weir has stated it as being six to one, Mayo 2 5 to one. In this report there were 32 males and 19 females. The symptoms naturally are kin to those of gastric ulcer, namely hematemesis and melena neonatorum. The complications are (1) hemorrhage; (2) perforation, acute, subacute and chronic; (3) cicatricial contraction and induration, causing narrowing at the ampulla of vater and obstruction to the outflow of bile and pancreatic juice; (5) periduodenitis; (6) cancer; (7) compression of the portal vein from cicatrization of a deeply placed ulcer (French); (8) diseases of the gall-bladder or bile ducts; and (9) diseases of the pancreas. The association of diseased gall-bladder and bile ducts with pancreatic disease is interesting. In 10 of the author's series there was obvious evidence of disease in the gall bladder with or without stones. Duodenal ulcer unquestionably may predispose to the formation of stones by giving rise to peritonitis. As a result of this there is stasis of bile and perhaps infection. The two conditions best known to be necessary for the formation of concretions. The relation of pancreatic disease to duodenal ulcer has not yet received attention. It was present in three of the 51 cases. A localized chronic pancreatitis may result from a gradual deepening of the duodenal ulcer. It may further be caused or aggravated by the same conditions which give rise to the ulcer, viz., alcohol or syphilis.

Congenaltal Muscular Atonia of Oppenheim.

Berti (Rivista di Clin. Pediatrica) believes in the clinical and anatomical conception of this new disease of children, which is congenital, and consists of an absolute inaction of the muscular masses of the extremities, and sometimes of the trunk and neck. The muscles remain flaccid and without atrophy for months and years, then gradually improve. The basis of this condition seems to be rather an incomplete systematization of the anatomical functions of the striated muscle, rather than an alteration of the ganglion cells of the anterior gray columns. In the absence of cases that have come to autopsy we can only theorize as to the pathology of the disease. If hyperfunctionality in the cerebrum produces contracture, hyperfunctionality must produce flaccidity. The lack of muscular tone is equivalent to a condition of dystrophy in the muscle. He concludes that these cases are a part of the great group of dystrophies, and the congenital myatonia of Oppenheim must have a pathology similar to that of severe forms of subcretinism and myxedema.

Parasites of Smallpox, Vaccinia and Varicella.

DeKorte in the London Medical Lancet, states that if human vaccine lymph be collected in capillary tubes on the ninth day of the disease, a considerable number of unicellular globes with refractile contents can be demonstrated. These bodies on the warm stage at 98 deg. F. show considerable motility, the changes in shape being sometimes so rapid as almost to evade observation. Leucocytes in human blister fluid kept at the temperature of the body may remain intact for five days or more. But it has been shown that these cells disapppear from the lymph spontaneously on or about the tenth day whether situated in the vesicle or stored in a capillary tube. For these reasons he believes it conclusively proven that the bodies under consideration are certainly protozoan parasites. To what class they belong, however, he does not know. The parasite is found in secondary vaccination as well. In hunting for them it is well to centrifugalize the capillary tube. The protozoon of variola and vaccina is an amoeboid organism measuring about one twenty-five hundredth of an inch. It has for the most part an oblate spheroidal shape, but encysted forms are found which may be four or five times as large. It consists essentially of cystoplasms, which in the encysted form is enclosed in the well-marked cell wall, and of a rounded or ovoid nucleus, which apparently has a definite membrane. This nucleus can be seen to possess a definite nucleolus. In the case of variola no definite pseudopsia has been seen.

Acute Lymphatic Leukemia.

McCrae (British Medical Journal) says that in the majority of cases of acute leukemia there is a rapid destruction of the red cells with the blood features of a severe primary anemia. The essential changes in acute leukemia are in the bone-marrow. Certain cases seem to justify the term "leukemia," suggested by Leube. In the study of future cases more attention should be paid to the changes in the red cells and the probable similarity to pernicious anemia definitely decided. The clinical features of acute infection, and perhaps a distinct disease from chronic leukemia.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

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THE WET NURSE.

At this time of the year the all-important question of feeding the infant often confronts the general practitioner. The evils that follow improper feeding are almost innumerable.

The mother who cannot nurse her child or who will not, for some selfish reason, might be said to take the life of her child in her own hands. If one were to take the statistics and look up each case of death among children, is it not possible that the most of these cases could be traced to improper feeding.

A mother who is fortunate enough to obtain a good wet nurse is, indeed, doing the next best thing for the child. In selecting a wet nurse, it is essential that she be strong and healthy, with a good family and personal history. She should be well taken care of and especially careful in her diet. If possible, the wet nurse's child, had it lived, should be about the same age as the child she is to nurse. Although this may not be one of the most essential points, it is worth considering, when you consider the changes that take place in mother's milk from month to month according to the needs of the growing child.

If the nurse is not of the intelligent class she should be instructed how to keep the nipples clean and bathe the child's mouth lest infection should take place.

Next to wet nurse goat's milk is best. If this cannot be had, good cow's milk properly prepared by using top milk with the proper proportion of cream and sugar, varied from month to month, according to the standard obtained from testing mother's milk each month, will, if the bottle, nipple, etc., is kept scrupulously clean, answer the purpose.

The different prepared infant's food which are constantly on the market contain too much sugar and not enough fat, so that children brought up on this are especially fat, but very often develope scurvy and rachitis.

The pasteurization of milk will often bring about the same conditions, so that rachitis and scurvy are not only found in children of the poor but among children of the rich, as well.

The idea that a wet nurse must use malt, beer, etc., is especially prevalent among the laity and should not be sanctioned as a routine measure. It is only indicated in a few cases where it is impossible to obtain the same results by other means.

WATER AS A DIURETIC.

Under the classification of diuretics the following drugs are usually given:

1st. Those that increase both the solids and liquid constituents.

1. Caffeine.
2. Squill.
3. Cauthardes.
4. Buchu.
5. Blatta.
6. Juniper.
7. Turpentine.
8. Uva Ursa.
9. Chimaphila.
10. Pareira brava.

2nd. Those which increase the watery constituents of the urine without increasing the solids proportionately.

1. Digitalis.
2. Vegetable salts of potassium.
3. Nitrous ether.
4. Lithium.

On looking over the above list one might say that their action is due either to direct stimulation of the epithelial cells or to increased blood pressure, or both.

The vegetable salts of potassium and the lithium salts, however, are exceptions to the above statement. They increase the solids in the urine, not by stimulating the secreting epithelium of the kidney, but by uniting with insoluable material in the system forming soluable compounds, which are then readily eliminated. They are indicated in conditions of renal inactivity due either to functional or organic causes. In the treatment of acute Bright's disease Osler, says: "The patient should drink freely of alkaline mineral waters, ordinary water, or lemonade. The fluids keep the kidneys flushed and wash out the debris from the tubes. A useful drink is a dram of cream of tartar in a pint of boiling water to which may be added the juice of half a lemon and a little sugar. Taken when cold this is a pleasant and satisfactory diluent drink."

Bright's disease, is at the present time, receiving an undue amount of attention, especially since the introduction of the Edobohls operation for the cure of chronic Bright's disease. Also the theory advocated by Dr. Ayers, of the New York Post-Graduate Hospital, which is as follows: The disease very often starts as an inflammation of the pelvis of the kidney and extends into the kidney substance and thus sets up an acute or chronic inflammation of the kidney substance. Dr. Ayers treats the pelvic inflammation by the use of the cystoscope and by passing the uretral catheter

and injecting protargol directly into the pelvis of the kidney.

If one looks back a little into the history of these cases he will often find that these people eat large amounts of solid food and drink very little water. These are often the patients which first come to us complaining of constipation, general languor, etc., and finally drift into the early stages of Bright's disease. That the waste products of the body are injurious to the working mechanism of the various cells is generally conceded by all; therefore, if a patient does not drink enough water to render the solid excretory materials soluable, there will be a daming up. These substances in the kidney will thus cause irritation, and in this way it may be possible to cause most any of the forms of Bright's disease.

Lack of exercise may be a contributory cause by causing constipation and lessening the excretory work of the skin. Where the disease has begun oftentimes the simple administration of large amounts of water or alkaline mineral waters will often flush out these accumulated waste products when if instead of this, a drug is given to stimulate the secreting epithelium cells which are already over-worked and hampered, many of these cells will be destroyed by over-stimulation and the patient rendered less able to excrete these products than before.

TALIPES VALGAS.

This is a deformity which is too often over-looked and put down as rheumatism or gout of the foot. It is a deformity which is easily recognized by the marked pronation of the foot with obliteration of its arch.

The congenital form is much more common than the various text-books would lead one to believe. The acquired form is the most common and may be due to rachitis static conditions paralysis, spastic conditions, traumatism and inflammation.

The rachitic form is usually seen before the seventh year and is often associated with knock-knee. The latter condition, when it exists, usually follows the rachitis talipes, and is therefore caused by the flat foot.

The static form is the one usually designated as pes planus, and is by far the most common of all. It is the flat foot of adolescence. It is found most commonly among waiters, nurses, barbers, bakers, and people who have to stand for a long time during their work. The distortion appears in weak patients of imperfect muscular development, and also in those patients where their general condition is depressed. Rapid growth is also a factor, and is especially evident among the messenger boys, in as much as at that period of life the recently formed tissues are not able to do their increased work. Two out of every three cases of flat foot are associated with lateral curvature of the spine. Traumatic and inflammatory flat foot is due to a great number of causes, but is most commonly seen as a result of a severe and intractible Pott's fracture. The bones in congenital flat foot even in severe cases show very little more alteration in shape than in the acquired forms.

The two ligaments most involved in these cases are the inferior calcaneo-scaphoid and the calcaneo-astragaloid, the latter does more to keep the keystone of the arch in place than does any arrangement of its components.

In severe flat foot the motion of the ankle joint is limited on account of the change of form of the bones of the foot, it is said that pointed shoes favor a gait that favors the development of flat foot.

In marked flat foot the points of tenderness are over the astragalo-scaphoid articulation at the inner border of the foot, in front of the internal malleolus and at the base of the first and fifth metatarsal bones, and often just in front of the external malleolus. In acute cases there may be swelling, heat and redness of the skin at the base of the first metatarsol bone. The pain is often most severe in the least marked cases and in other cases where the structural change is very advanced, it may be insignificant. There is a lack of elasticity of the gait noticed by the more intelligent patients who find their foot stiff and clumsy.

These patients say that after standing upon their feet for any length of time pain comes on and becomes so severe that it shoots up the legs, sometimes even as far as the thighs. It is sometimes lessened by sitting down, but when once present it is likely to last for several hours. It continues into the night and may be so severe as to prevent sleep.

Children, as a rule, do not seem to suffer pain, however severe the flat foot may be. Sometimes where it is evident that flat foot must have been present for a long time pain and tenderness will suddenly come on, perhaps, spontaneously, or perhaps immediately after some slight wrench or twist of the foot in walking.

The diagnostic sign upon which one relies is a greater or less breaking down of the arch of the sole of the foot with a pronation of the foot.

In acquired flat foot in adults the characteristic symptom of pain in the foot or legs which comes on after standing and is worse at night than in the morning. A great many of these cases are treated as rheumatism and the real structural changes

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are lost sight of and, therefore, the condition often progresses to a stage where an operation is the only alternative, while if it had been treated earlier by proper exercises or a properly fitting plate an operation would be avoided.

THE JOURNAL OF THE A. M. A.

The Journal of the American Medical Association is open to worse criticism than the Association, its parent. Not from a scientific standpoint—no; the Journal is to-day the greatest medical journal on earth, and great credit is to be given Dr. George H. Simmons for its high place. But—the "crowd" which controls it as absolutely as if it were their own private property, has more than the mere financial success of the Journal in view. The objective point is thus: to drive all independent medical publications from the field; i. e. in time to limit medical journals in this country to the "special periodicals (devoted exclusively to opththalmology, surgery, etc.) and the various "State" journals, all articulating with the Journal of the A. M. A. To that end advertisements are taken at a rate proportionately lower than private medical journals afford to accept; instead of which the official journal of the great body ought to be receiving rates far higher than any other publication in the world, except the British Medical Journal. To even matters up it "juggles" its accounts in such manner as to make it appear necessary to accept advertisements of questionable character—which it does in spite of the most violent protests, and the cutting sarcasm of such writers as Dr. Phillip Mills Jones, the accomplisht (and ethical) editor of the California Medical Journal. When the Journal is thus conducted from the business standpoint, is it not open to criticism? And when the Journal refuses to accept the contributions of such a writer as Dr. G. Frank Lydston, of Chicago, an author of national reputation and prominent member of the American Medical Association, simply because his words frankly disapprove of certain highly objectionable conditions, is it time for medical editors to keep silent? Finally, when the managers of the Journal permit editorials and articles to appear only of such character as to further their own plans, however wrong these may be, is it not proper for the independent medical press to call attention to the right side of the questions involved? In all fairness, it may be said of the "leaders" in the "reorganization," that most are earnest and conscientious; but there are some who are not like unto Cesar's wife—above suspicion. "And in the latter day those who are upon the watch-towers of Zion shall witness many things."

This is taken from the pen of Dr. LeGrand, of Birmingham, Ala. In as much as he has always been a supporter and member of the American Medical Association, and has worked intelligently and energetically for the plan of reorganization as suggested, for so many years, whatever he has to say deserves careful consideration by the medical profession generally. No one has the best interest of it in mind more than Dr. LeGrand.

The Chicago "ring," of which, no doubt, Dr. Simmons is chief, intends ultimately to crush independent medical journals and carry out the plans suggested by Dr. LeGrand. It has been a puzzle to me why the large medical weeklies have never been able to see what this "ring" intends to do. Lately the New York Medical Journal got one eye open just a little. Of course when this Chicago crowd gets things a little better arranged they will want to establish the same relations between the State Medical Societies and the American Medical Association as now exists between the County Societies and the State Associations. This will make every member of every State Association a member of the National Association, and put the journal into the hands of at least ninety thousand physicians. Very few of this number will care to take more than one weekly. The monthly publications in which the profession of the South is the most interested, will have to contend with their plan to establish an official organ for every State Society. This official organ, if ever their plan is perfected, will be owned and controlled by the State Society. This plan, when completely arranged by our Chicago friends, will put a large medical weekly and one monthly, the State Association Journal, in the hands of nearly every physician throughout the country. This will be about all the current medical literature that an ordinary physician will want and will satisfy nine-tenths of them, consequently the New York and Philadelphia weeklies and the monthlies scattered all over the country will not be able to live very long with this new regime.

Journals outside of this combine will not be able to get but very little advertising and their subscription lists will soon dwindle to nothing. A few medical editors seem to realize what the future has in store for them, but only a very few.

TREATMENT OF EGLAMPSIA.

All are agreed that the proper treatment in these cases is elimation. The number of cases of eclampsia would be greatly lessened

if pregnant women would place themselves under their family physicians care after the first three months, in this way the urine would be examined and the various practical remedies given to assist the excretory functions of the mother. In a great majority of cases the doctor is not summoned until the mother has had a spasm and is often unconscious. It is a very common custom to start in by giving a hypodermic injection of morphine to control the spasm. If this is done the physician must fully realize that this is only a temporizing agent, and that he must necessarily push his eliminative remedies just that much more to overcome the effects of the morphine.

The greatest objection to a large dose of morphine in these cases would be the checking of the excretion of the poisons by the bile. Usually the kidneys and the pressure of the pregnant uterus are looked upon as the only two causes which should be relieved in these cases. But cases have been reported in which the kidneys were found to be normal and yet death was due to eclampsia, therefore the active purge does more than clean out the bowel and deplete the blood, it reflexly stimulates the liver and increases the flow of bile.

A hot pack with a hypodermic of pilocarpin will stimulate the excretory functions of the skin.

In regard to immediate delivery of the child, one should determine first whether or not the child is living, if it is alive one should try to eliminate and save both mother and child for this may be only a crisis which may be overcome by quick elimination and by careful diet and appropriate remedies it may be possible to bring about a normal full-time delivery. This would be especially indicated if the child was not viable. Viratrium viride given in large doses hypodermically may be used instead of morphine in controlling spasm, but has not proved to be so successful as the various text-books would lead one to believe. Normal saline given per rectum or subcutaneously, or if case demands intravenously dilutes the blood promotes elimination of the ptomaines, etc., in the blood and is therefore one of the best and least injurious of our eliminative remedies.

FRENCH HOSPITAL.

According to Dr. Blatin there are many defects in the management of French hospitals. His description that we herewith partly give may be an over-drawn picture. But there is enough accuracy about it for one who has visited these hospitals to recognize these scenes, even if the doctor had not called any names. There are many more things to commend American and English hospitals than you find in France. The following is a part of Dr. Blatin's description:

"A dresser, with bared arms, blood-stained apron, and tongue-forceps hooked in his button-hole, emerges hastily from the operating theatre. He searches for the patient whom he has been instructed to anæsthetise. "It is you, Number 10," he says, "who is to be operated upon this morning for hernia?" "Yes, sir." Without further remark he pours the chloroform on the towel. The patient becomes agitated. He calls for a male nurse or a student. Every one is busy; the dresser becomes annoyed, and the patient struggles violently. At last a male nurse arrives, and throws himself half across the bed in order to hold down the patient, who now breathes stertorously and makes noisy efforts to vomit. The door of the operating theatre opens to let the wheeled litter pass out, on which has been placed a livid patient who has just been under operation; behind him follows an attendant carrying a bundle of blood stained linen. Again the door swings open disclosing the surgeon, or house-surgeon: "Come along is he completely under the anæsthetic? It is the tenth—I should say the twelfth—laparotomy. Let us have this one, and let the next be anæthetised at once!" And the operation cases follow one after another into this mysterious and awe-inspiring theatre, from which they return swathed in cotton wool and motionless like corpses. The surgeon departs, goes back to his private work, the assistant or the house-surgeon replaces him, and the sad procession of cases continues. The noisy exclamations of alcoholic patients as they are being got under chloroform, and the pitiful groanings of those who have been operated upon as they emerge from their anæsthetic, never cease for a moment. And all this without sympathetic word being said to any of these unfortunates who are waiting their turn, and who naturally exaggerate a hundredfold the suffering and danger to which they are about to be exposed. In an English hospital no patient ever dies alone. A nurse is detailed for special duty in every moribund case. He is assured of having, up to the last moment of his life some one to help to mitigate his final sufferings. In Paris the moribund patient passes away alone among frightened neighbours who turn away from him; in the midst of busy work almost in touch with passing dressers and nurses, who, while bustling over their work, throw smiles to the students. Flies cover his face and crawl round his eyes, his feeble hands make vain attempts to pull up the sheet, and the rattle in his throat is heard throughout the ward as a pitiful and sustained ap-

peal, without it occurring to any one to adjust the bed clothes to chase, away the flies, or to separate the dying man's lips that he may breathe better. The rattling ceases. He is dead!"

THE USE OF THE PROTOSCOPE.

There is no doubt that many cases of dysentery, diarrhœa, etc., are often due to some local pathological condition existing in the rectum or sigmoid. These conditions are usually seen in various forms of inflammation of the mucus membrane with or without ulceration, strictures, the various tumors benign or malignant presence of foreign body, etc.

The routine treatment of giving opium, bismuth, etc., by the mouth has, as a rule, little or no effect. On examination in the knee-chest posture with the ordinary speculum, the condition cannot be seen by the operator. Too often a beginning carcinoma which would be easily recognized by passing a protoscope and obtaining full view of the sigmoid and rectum is allowed to run on in its course until even a Kratske operation for its removal offers very little chance of recovery.

In cases of inflammation and ulceration by using the protoscope one can treat locally, the ulcerations can be treated separately same as one would treat an ulcer on the surface of the body. The various injections are good but one is working in the dark having to make up a solution for injection in a case where numerous ulcers exist in various stages of development and treating all in the same way one cannot obtain the same results as when each one is treated separately. In the days before the use of protoscope men depended purely on the sense of touch, although we must admit that these men were especially skillful and their sense of touch well developed. Yet, no one can deny that the sense of sight greatly exceeds the sense of touch when taken separately.

In order to use the protoscope it takes some practice, but if a man will look up his anatomy and relation of the parts and work carefully he ought to find little difficulty in inserting it into the rectum, as far as the sigmoid.

The colonoscope which is about 18 inches long and made on the same principle as the protoscope with an obturature is more dffficult to pass on account of the angle at the junction of the colon and rectum. In using these instruments the knee-chest position is by far the best. If the general practitioner would take pains to use these instruments and thus make a more careful examination of this class of cases, many of the complications which are so often seen might be avoided.

In October, 1904, the Southern Medical Journal and Gaillard's Medical Journal were consolidated and now go by the name of Gaillard's Southern Medicine, published by the Gaillard's Southern Medicine, Inc., Savannah, Ga. President and Treasurer, Wm. Edwards Fitch, M. D.; Vice President, M. C. Fitch; Secretary, E. W. Fitch. Capital stock $5,000, fully paid,

The latest scientific wrinkle from Paris is the announcement that criminals will be radiographed. About 16,000 plates have been collected by the police department from the hospitals. It is proposed that in the future all convicted persons shall be radiographed as they are now anthropometrized according to the method devised by M. Bertillon.

Review of Southern Medical Literature.

New Orleans Medical and Surgical Journal, February, 1905.

Dr. Roy M. Van Wart calls attention to the frequency of multiple sclerosis in Louisiana as compared with other parts of the United States, also of Canada and Europe. It is a frequent disease in Louisiana and surrounding States.

Vaginal Cesarean Section with Report of Case — Dr. C. Jeff Miller recommends this procedure in preference to accouchment force and agrees with Webster in using this method in cases of pregnancy complicated with carcinoma of the cervix and advises a hysterectomy soon afterwards. It is indicated in many cases in preference to the abdominal hysterectomy where the patient is suffering from shock. Finally sums up the advantages of the method, viz:

1. In severe eclampsia when the woman is unconscious between the convulsions, the cervix rigid and elongated, and delivery imperative, it is always preferable to abdominal caesarean section, and, under proper surroundings may be preferable to metal dilators.

2. In severe cases of accidental hemorrhage, when the cervix is closed, it is safer than the other methods of accouchment force, owing to the rapidity with which the uterus can be emptied, and should be given preference over abdominal hysterectomy, which is generally advised.

3. It may be considered in other conditions where Caesarean section is indicated, except in contracted pelvis or dystocia arising from maternal or fœtal disproportions.

4. It has not the disadvantages of an abdominal operation, the peritoneum need not be opened unless hysterectomy is to be performed for malignancy, and there is less shock than follows abdominal operations.

5. It is not more dangerous than attempting to deliver either by version or forceps where the os is not dilated, if done under strict aseptic precautions.

Tubercular Adenitis and Hodgkins Disease. Is the Etiology Identical?—Dr. J. R. Briggs believes that the two pathological states may be the same disease, presenting unusual phases or in different stages, or in other words, tuberculosis is the prime factor in both instances. He recommends as a prophylactic measure against such enormous glandular enlargements resulting from the adenitis of so-called Hodgkins disease, the early removal of all scrofulous glands and the hypodermic injection of the culture products. In all such cases the infiltrations may be disintegrated and absorbed.

Maryland Medical Journal, Feb., 1905.

Pathology of Epilepsy.—Dr. Wm. Rush Dunton, Jr., read this paper before the section on neurology and psychiatry January, 1905, at a symposium on epilepsy.

Virginia Medical Semi-Monthly, February 10, 1905.

Medical Supervision of Matrimony.—Dr. A. B. Griener revives a few of the attempts made to have medical supervision of matrimony in some of the States, and shows how such suggestions have gone down under a storm of unfavorable comment. Taking the stand that preventitive and prophylactic medicine is the medicine of the future, he regards the supervision of matrimony one of the most essential. It is recommended that a commission composed of intelligent, conscientious, non-partisan physicians should render the verdict, and a decision thus carefully rendered should not be subject to appeal. Perhaps a commission for each county would be most convenient. When properly used the power of such commission would prevent a number of projected marriages, would control the propogation of many hereditary and loathsome diseases, and hold in check the procreation of diseased and degenerate progeny. Those diseases that are known to be hereditary in their nature certainly could not be transmitted to children who are of healthy parentage, for the offspring of such a marriage cannot be tainted. In the dim vista of the future the word congenital would become a misnomer and the word hereditary erased from our medical vocabulary. Stop and consider the ravages of those wide spread scourges, syphilis, gonorrhœa, tuberculosis and cancer, all of which diseases in parents can be either transmitted directly from them to their progeny or can so influence the bodies of their children that they easily succumb to the devastations of disease. The number of idiots, imbeciles and criminals that to-day can be found throughout the land, in many instances the direct result of unadvisable marriages, is an everlasting evidence of what may be expected if blood relations are permitted to enter into the marriage contract.

Nashville Journal of Medicine and Surgery, Februayy, 1905.

Duty of the Profession in the Prevention of Consumption.—Dr. J. A. Witherspoon presents some very interesting facts in this article which not only the profession but the public in general would do well to consider.

Hemorrhoids—Dr. Joseph A. Hardin gives the etiology, symptoms and treatment of both the internal and external variety.

Mobile Medical and Surgical Journal, February, 1905.

Matters of Sanitary Interest on the Isthmus.—Dr. Henry Goldthwaite, of Mobile, Ala., executive officer Quarantine Board of Mobile Bay, gives us some valuable information in regard to the sanitary conditions existing on the Isthmus. It is stated that malaria in its most pernicious form is the commonest and most fatal disease, and to quote a recent authority, yellow fever occurs in Colon, although the authorities try to persuade themselves that it is imported from Panama.

Memphis Medical Monthly, February, 1905.

Radical Operation for Internal Hemorrhoids Without Anesthesia.—Dr. A. B. Cooke recommends Dr. Gant's sterile water anesthesia for the removal of internal hemorrhoids. Although he has not used it in cases complicated by inflammatory involvement of the anal margin and requiring extensive dissection through the skin, but believes that it can be done by those who have had a little more experience in using sterile water for local anesthesia.

Edebohls Operation Report of a Successful Case—Dr. W. B. Sanford's case was one of parenchymatous nephritis which had engrafted upon it the acute form, an occurrence which is quite common. The patient so far as the examination of the urine and kidney is concerned, seems to be perfectly well.

The Texas Medical Gazette, February, 1905.

Management of the Pregnant Woman.—Dr. J. W. Miller points out the various dangers and diseases the pregnant woman is subject to; also, gives the prophylactic treatment in regard to the blood, nervous system, dress, exercise, diet, bowel and kidney. The importance of a careful and

systematic examination from time to time during gestâtion of the urine.

The Texas Medical News, February, 1905.

Carbolic Acid.—Dr. R. W. Skipper calls attention to the fact that alcohol is a chemical antedote for carbolic acid, and if given at once after the acid is swallowed would completely neutralize the acid. Especially is this true if the carbolic acid is accidently or otherwise applied to the surface of the body. Strychnine, brandy and dry warmth are recommended for the shock. In cases of carbuncle he applies pure carbolic acid, as kept by the druggist in fluid form, over the entire tumor, except a small portion at its base. If ulceration has set in and if the integnment is so far destroyed as to open the mouths of the cells to a considerable extent then apply the acid with camelshair brush or feather until all the part that is ulcerating has been bathed in it and a portion of the indurated base lightly brushed with the same agent. If the carbuncle is not ulcerating on its salient point or if the ulceration has begun and yet not extended enough to admit of a free application, then make a number of crucial incisions just through the skin and dress with antiseptic dressing. In all forms of hemorrhoids place patient in Simm's position, cleanse all the tumors, and after applying vaseline to the skin around the anas to protect it, with a clean feather paint them with pure carbolic acid until they are whitened a little on their surfaces and place cotton batting over them using bandage to hold them in place. The object in using a feather is to carry but a fraction of a drop at each time, and thus leave no more in one place than just enough to show on the surface of the pile. This line of treatment should be persued daily or every second day. In internal hemorrhoids use application of alcohol before returning them above the sphincter.

In removing an ingrowing toenail make an incision through the nail, beginning near the base and gradually widening until you get to the free portion, cutting just through the nail and no further. If you go deeper it will cause pain. Then press upon the two cut edges so as to separate them a little and with a match trimmed to a fine point carry a little of the acid on the bottom of your incision, at the same time applying a little along the edge of the nail next to the toe which is nearly always in a state of inflammation and suppuration After a short time you can cut without pain for a short distance beyond your opening in the nail, Continue to apply acid and to cut until you get to the lower border. You will find that you have no hemorrhage and the fluids on the cell surface are coagulated.

Texas Medical Journal, February, 1905.

Chronic Gastritis.—By Dr. J. R. Hunter, Hornsby, Texas.

Digitalis and Veratrum in the Treatment of Pneumonia.—By J. W. Carhart, Austin, Texas.

Virginia Medical Semi-Monthly, Februaay 24, 1905.

Dr. Wm. F. Mercer reports the two following cases: 1. Chronic Bright's Disease, Cholesteatoma, Mastoiditis, Operation.

2. Chronic Suppurative Otitis, Repeated External Infection, Mastoiditis, Operation, apparent superficial gangrene. Recovery.

Sarcoma of Cervix Uteri.—Dr. John E. Phillips reports a most interesting case in a girl of 15.

Southern Medicine and Surgery, February, 1905.

Pure Food and Drug Legislation.—Dr. F. B. Sloan recommends the passage of laws by the Senate which would no doubt improve the present state of affairs in this regard. It takes time to educate the public in these lines, for at present the profession as a whole do not fully realize the amount of harm that is being done by those carrying on this class of business.

The Southern Practitioner, Feb., 1905.

Special Fractures.—By Duncan Eve.

Complications of Rheumatic Fever.—Dr. D. B. Blake takes up endocarditis, pericarditis, myocarditis, hyperexia, pleuritis, the skin and treatment. In regard to the treatment in any or all these conditions depending on a rheumatic diathesis, the salicylates (preferably from the gautheria) are to be tried, care being observed in regard to the heart and to idiosyncrasies also large amounts of mildly alkaline waters.

Southern Medicine and Surgery, March, 1905.

Causes and Symptoms of Nasal Obstruction.—By Dr. John B. Davidson, Richmond, Va.

The Southern Clinice—The Certainty of Remedies.—This article appears in the March issue of the above journal by Wm. F. Waugh.

Maryland Medical Journal, March, 1905.

Vital Statistics the First Requisite to General and Local Sanitary Government.—By John S. Fulton, M. D.

Atlanta Journal-Record of Medicine, March, 1905.

Causes of Appendicitis.—Dr. Joseph H. LaConte states that the causes of appendicitis may be classified as predisposing and exciting the anatomy of the appendix and its relation to adjacent structures, being the

predisposing causes and the exciting causes being largely manifested in mechanical and bactericidal agencies. With regard to age, small children and the aged being peculiarly exempt. As age advances, the mucus and submucus layer of the appendix sometimes undergoes a process of involution by means of which the glandular and lymphoid tissue are lost and hyperplasia takes its place, and the lumen is entirely obliterated. So frequently is this found in the aged that it is claimed by some to be a physiological process. Those who lift heavy weights or are exposed to traumatism seem to be more subject to attack. The extension of certain disease processes into the appendix, such as is seen in dysentery, typhoid fever, syphilis or actmomycosis, occasionally cause appendicitis, though they rarely present the typical symptoms generally seen in that condition. Excessive use of alcohol, exposure to cold, influenza, rheumatism, and many other influences are put down as causes. The statistics show that hardly 2% per cent. of autopsies or operations reveal foreign bodies in this condition. Fecal concretions, hard or soft, are frequently present and certainly act as an exciting cause in some cases, though they are often found in the normal appendix. A fæcal concretion may pass into the appendix fully formed or may be built upon a fruit seed or particle of mucus. These may cause inflammation in either of two ways; first, on account of pressure, ulceration may take place at the point of contact, but more often they cause retention and stagnation of appendical contents, and infection follows, operation often revealing the perforation in the appendical wall distal to the concretion, catarrh of the colon and cecum from any cause may cause a catarrh of the appendix and thus cause occlusion of the lumen stagnation of contents of infection. Distention of the cecum of the ileum with gas or fecal matter may act as an exciting cause where unusual growth or overdistention of the lower ileum or cecum occurs the enlargement takes place at the expense of the narrow mesentery of the appendix and causes distortion, constriction and interference of the blood supply. A series of careful statistics relating to the condition of health of a large number of individuals after removal of the appendix where tendency to diarrhœa, constipation, poor nutrition, and the necessity of a special selected diet to prevent these conditions would throw much light on the function of the appendix and the causes of its frequent inflammatory involvement. Though the causes of appendicitis are varied, the majority are intimately associated with the digestive process and the factors controling it.

Virginia Medical Semi-Monthly, March 24, 1905.

Concrevature Gynecology.—Dr. Chas. R. Robinson says that it is generally recognized now that few conditions warrant complete extirpation of ovarian tissue. In the early days of operating the presence of even a few follicular cysts was thought to justify removal of the ovaries. Now these cysts are simply punctured. It is now known that retrodisplacements is not necessarily a diseased condition. As long as the organ is fully mobile and not congested it will give rise to few symptoms when, however, other conditions enter as complications, they can rarely be completely relieved until the uterus is brought back to its normal position. The question of how to correct a retrodisplacement has been one that has called forth volumes of discussion and numerous operations, but it is now generally conceded that the operation which accomplishes this by the use of nature's ligaments is the best. It is always a difficult matter to improve on nature.

The class of cases, however, that have been the most difficult with which to deal have been those of inflammatory origin, and the writer believes that along this line it is possible to bring to bear with greatest promise of results. The most conservative treatment nature seems to have recognized the danger of infection along the genital tract and to have made very efficient provision against it. Under proper treatment the inflammation can almost invariably be limited and will seldom go to a fatal termination. It has often been observed that after awhile the infective matter goes through the life cycle of the bacteria and becomes sterile.

The writer recommends in acute pelvic inflammations putting patient in bed and keeping them absolutely quiet. Hot fomentations to the abdomen, copious hot antiseptic douches every 3 or 4 hours, and each night a vaginal cone composed of echthyol and glycerine inserted into the vagina. The bowels are evacuated, both by salines and enemata.

Movable Kidney, Its Causes, Symptoms and Diagnosis.—Dr. Planton L. Hallsman says that movable kidney is found in one out of every four women. The three causes are usually given in the text-books the author takes exception to. The absorption of the fatty capsule is disproved by the findings at operations for movable kidney by numerous operators, viz: abundance of fat surrounding the kidney bed. Tight lacing is disproved etiological as a factor by the results of examination of Arab women by Dr. Frakaki. These women wear no form

of abdominal binder, and yet 42% had movable kidney, a larger percentage than found in European corset-wearing women. Repeated pregnancies must have etiological factor, as fully 80% of cases are found in child-bearing women. But this is not due to a relaxed abdominal wall following pregnancy, for if it were, the left kidney would be movable as often as the right.

It is admitted that a larger percentage of women carry the child with one pole in the right hypocondrium. Therefore, the growing uterus pushing upward into the right hypocondrium will encroach on the right kidney causing impairment of circulation and improper drainage by pressure on the ureter. As a consequence of this encroachment and pressure have enlargement of the kidney, lateral compression of the fatty capsule and displacement of the kidney upwards.

After delivery the uterus and intestines return to their normal position the kidney falls downward into its fatty bed, but the capsule having been compressed laterally and fatty tissue not being resilient or elastic, does not spring back to grasp the now normal size kidney, and the kidney consequently is movable.

Important Points in Diseases of the Eye of Special Interest to General Practitioners.—Dr. G. C. Chandler calls attention to a fact which every physician becomes conscious of after he has practiced six or eight months which is, that while in college our aim is more to pass the examination than to obtain that knowledge which will in after life be of most benefit to our patients. Especially is this true in regard to the special branches of medicine. For instance, many men practice in places quite remote from the larger cities and their patients are unable to go to a specialist, therefore, he must take charge of the case himself.

Possibly more harm may be done in treating certain eye conditions than in other branches, a physician who treats an iritis for a conjunctivitis will allow the condition to go on until perhaps the eye is irritrievably ruined.

When the pupil is of normal size the iris near the pupil rests on the capsule of the lens so that as soon as the iris throws out lymph the iris adhers and the lymph gradually covers the pupil, causing blindness that is practically incurable, for though by an operation you may tear the adhesion loose and make an artificial pupil so as to give some sight, it is usually temporary in its results, for the iris is bound down and subject to repeated attacks of iritis with the usual showing out of lymph which organizes and gradually closes the artificial, as it has before done the natural pupil.

A patient presenting himself with an acute hyperæmia of the conjunctiva the question to decide is whether it is due to a foreign body, or a simple conjunctivitis or a purulent conjunctivitis or an iritis. The history of the case may reveal the diagnosis of foreign body, or if patient has been bathing the eye in urine, and on questioning further may find that he has a gonorrhœa, this would complete the diagnosis of a gonorrheal opthalmia.

In examing for foreign body after turning the upper lid and making a careful search of the cornea, external and internal, canthus and lower lid you are unable to find it cocainize the eye and with a probe while the lid is still turned, raise the cartilage from the eye-ball, at the same time having the patient look downwards, in this way you can get a view of the whole cul de sac by repeating this process at different parts of the cartilage, though occasionally this may fail; when this occurs wrap absorbent cotton on a small probe and mop the cul de sac from the outer canthus toward the nose.

In iritis the redness becomes more intense as it approaches the cornea in conjunctivitis it lessens as it approaches the cornea, so at the margin of the cornea you may notice a light ring. In iritis the action of the pupil is sluggish to light, may be irregular in outline and have a deep redness in the ciliary region. In the earliest stages these symptoms may not be discernable, so if iritis is suspected, it is well to use atropine for it is good treatment in conjunctivitis and absolutely necessary in iritis. Atropine should be used with caution in elderly people, as it may bring on an attack of glaucoma.

Refractive errors are the cause of the majority of squint and, therefore, the child should be treated with properly fitting glasses. If this is not done before the child has learned its letters the squint becomes permanent and can only be cured by a surgical operation.

The cause of those persistent headaches that medication fails to relieve of asthenopia, blephoritis, follicular, conjunctivitis, styes and the various hyperæmias and their sequelæ are due to errors in refraction and can only be cured by properly fitting glasses.

The Louisville Monthly Journal of Medicine and Surgery.

Round Ulcer of the Stomach.—By Dr. John G. Cecil.

Some Observations on the Diagnosis and Treatment of Gall-Stones.—By Dr. Arch Dixon.

Book Notices.

A Text-Book of Medical Chemistry and Toxicology. By James W. Holland, M. D., Professor of Medical Chemistry and Toxicology, and Dean, Jefferson Medical College, Philadelphia. Octavo volume of 600 pages, fully illustrated, including 8 plates in colors. Philadelphia and London: W. B. Saunders & Company, 1905. Cloth, $3 00 net.

Dr. Holland possesses the faculty of making even the most difficult and complicated chemical theories and formulæ easy and clear. This is probably due to his thirty-five years of practical experience in teaching chemistry and medicine. Recognizing that to understand physiologic chemistry students must first be informed upon points not referred to in most medical text-books, the author has included in his work the latest views of equilibrium of equations, mass-action, cryoscopy, osmotic pressure, dissociation of salts into ions, the effects of ionization upon electric conductivity, and the relationship between purin bodies, uric acid, and urea. Chemical substances he has treated from the standpoint of the medical student and physician, giving much more space to Toxicology than is given in any other text-book on chemistry. The chapters on the clinical chemistry of milk, gastric contents, and the urine, and that on water supply and filtration are full of practical information. Dr. Holland's work will undoubtedly be gladly received by the profession, presenting as it does the mature experience of a practical teacher.

A Reference Handbook for Nurses. By Amanda K, Beck, of Chicago. 32mo volume of 150 pages. Philadelphia and London: W. B. Saunders & Company, 1905. Bound in flexible morocco, $1.25 net.

This little book contains information upon every question that comes to a nurse in her daily work, and embraces all the information that she requires to carry out any directions given by the physician; it includes also instructions for all emergencies that may arise before or between visits of the physician. It is of immense value to student nurses because it contains all the material they are expected to commit to memory from notes. Physicians, too, will find the book of value, because it contains exact details as to solutions, foods, dosage, poultices, applications, etc. There are also articles on bacteriology, massage, medical electricity, obstetrics, care of infants, and such information. The mechanical get-up of the book is both convenient and attractive. It is of a size to fit the pocket and is neatly bound in flexible morocco.

Diseases of the Blood (Anemia, Chlorosis, Leukemia, Pseudoleukemia). By Dr. P. Ehrlich, of Frankfort-on-the-Main; Dr. A. Lazarus, of Charlottenburg; Dr. K. von Noorden, of Frankfort on-the-Main; and Dr. Felix Pinkus, of Berlin. Entire volume edited, with additions, by Alfred Stengel, M. D., Professor of Clinical Medicine, University of Pennsylvania. Octavo volume of 714 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Company, 1905. Cloth, $5.00 net; Half Morocco, $6.00 net.

This volume on Diseases of the Blood is the ninth in Nothnagel's Practice to be published in English. It includes Anemia, Chlorosis, Leukemia, Chloroma, Pseudoleukemia, and each condition is treated so exhaustively and the theories discussed so carefully that the work will remain the last word on the several subjects for many years. Dr. Alfred Stengel, under whose excellent supervision the entire series is being issued, is also the individual editor of this volume, His wide experience and recognized ability as a clinician, and his valuable work concerning the histology, both normal and pathologic, of the blood, renders this volume of unusual interest. His additions are particularly frequent in the article on Anemia. When this series is completed—and the publishers assure us that the three remaining volumes will shortly appear—it will undoubtedly form the best practice of medicine in existence, expressing the opinions of the highest German and English speaking authorities.

Chemical and Microscopical Diagnosis. By Francis Carter Wood, M. D., Adjunct Professor of Clinical Pathology, College of Physicians and Surgeons, Columbia University, New York; Pathologist to St. Luke's Hospital, New York. With One Hundred and Eighty-eight Illustrations in the text and nine colored plates. Cloth, $5.00; Half Leather, $5.50. D. Appleton and Company, Publishers, New York, Philadelphia, London.

Among the important questions considered in this book are those of the examination of the blood in typhoid fever; progressive anemia; acute lymphatic leukaemia; examination of the blood before operation for the removal of tumors of the abdominal cavity; the testing for albumin in the urine; identification of the different sugars in the urine.

Dr. Wood has laid especial stress upon the study of sputum, which may enable the practitioner who employs suitable staining methods to diagnose tuberculosis before changes in the lungs sufficient to give rise to physical signs make their appearance.

We also find a section on the examination of the stomach contents, the gastric juice, and the feces; these are treated especially from the view point of diagnosis. Under sputum we may call attention to the completeness with which the methods of demonstration of the tubercle bacillus under various conditions are emphasized and described.

The chapter on urine is one of the largest in the book and contains much that is new and not to be found in other text-books. The needs of the practitioner are consulted. An especial feature is the introduction of a number of pages giving the reactions of drugs when they appear in the urine. The reactions of iodine in the urine are given in full, and likewise those for mercury, the detection of the latter being especially important in connection with the treatment of syphilis. Casts and crystals in the urine are illustrated by many photographs, as are the various other deposits found in that fluid. Full description of the progress in infant feeding is given. The relation of human to that of cow's milk. Methods of analysis of both fluids are given.

A section on parasites is very fully illustrated and is thoroughly up-to-date.

Malaria has a complete discussion. A full discussion of th Widal reaction is given.

The section on examination of the blood is illustrated by a series of eight colored plates. Here we have an atlas of diseases of the blood such as is given in no other work.

Dr. Wood gives us the result of many years of teaching in college and university, and in one of the largest hospitals in New York City. An appendix has been added containing full directions for the making of staining fluids, the care and purchase of apparatus, the necessary reagents, the preparation of normal solutions, the cleaning of slides and cover glasses and the removing of dyes from the hands, thus completing a very practical book. No book has been published in the English language for years along this line, that is equal to this.

Thoughts for the Occasion. Fraternal and Benevolent. Reference Manual of Historical Data and Facts; Helpful in Suggesting Themes, and in Outlining Addresses for the Observance of Timely or Special Occasions of the Various Orders. Compiled by Franklin Noble, D. D., Editor of the Treasury Magazine. New York: E. B. Treat & Company, 241-243 West 23d Street, 1905. Price $2.00

This book is written for the purpose of describing the various fraternal organizations in this country with their history and their benefits. It gives a thorough and intelligent and satisfactory account of the origin and growth and present condition of the principal fraternal societies at this time. It contains many interesting addresses, in which some of the most distinguished men of the present time have expressed their appreciation of these different fraternities. Altogether the book is well worth reading. It contains 576 pages.

International Clinics, A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Opthalmology, Otology, Rhinology, Laryngology, Hygiene. and other topics of interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia, U. S. A., with the Collaboration of Wm. Osler, M. D., Baltimore; John H. Musser, M. D., Philadelphia; James Stewart, M. D., Montreal; J. B. Murphy, M. D., Chicago; A. McPherson, M. D., Toronto; Thomas N. Rotch, M. D., Boston; John G. Clark, M. D., Philadelphia; James J. Walsh, M. D., New York; J. W. Ballantyne, M. D., Edinburgh; John Harold, M. D., London; Edmund Landolt, M. D., Paris; Richard Kretz, M. D., Vienna, with Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume I. Fifteenth Series, 1905. Philadelphia and London: J. B. Lippincott Company, 1905.

We do not receive any book that is more welcome than the International Clinics. Each volume is always full of interest and valuable matter. Material that is practical and prepared by the most cultured and prominent men in the medical profession of the country. This volume, which is the first of the fifteenth series, is of especial value. Its illustrations are quite numerous and show evidence that this plan of teaching is rapidly becoming more popular. The publishers deserve a great deal of praise for not only keeping this periodical volume up to the high standard originally adopted, but they are trying to make it more valuable each year.

This volume contains 312 pages and has a complete index and uniform binding.

A Handbook of Nursing. Revised Edition for Hospital and General Use. Published Under the Direction of the Connecticut Training School for Nurses. Connected with the General Hospital Society, New Haven, Connecticut. Philadelphia and

London: J. B. Lippincott Company, 1905.

The great advance in the science of medicine and consequently in nursing makes it necessary to change and enlarge this valuable book. All private nurses to be successful must be trained in a hospital, and while losing officialism and gaining time and freedom for a more personal sympathy, must bring to their private patients the steadying influence of careful hospital drill. For this reason this new edition provides for hospital preparation for their later work in private families.

In preparing the revision of this book the late authorities on medical and surgical subjects have been consulted, and graduate nurses have made their valuable contributions.

The book is not intended to take the place of class-room instruction, but to assist the nurse in the intelligent performance of her daily duties. It is carefully indexed, contains 319 pages, and is substantially bound.

The Eye, Mind, Energy and Matter. By Chalmers Prentice, M. D., Chicago, Ill., U. S. A. Published by the Authors.

The first half of this book is written for the general reader, and if careful attention is given to the opening chapters it will enable the reader to clearly comprehend the balance of the book, which is of a professional nature.

The author claims that drunkenness is a nervous disease, and the latest discovery of its cure is by the use of eyeglasses. To thoroughly appreciate this treatment of inebriety all of the preceding chapters should be read. As this curse casts its shadow into nearly every home, it deserves the most serious attention. This is the sixth chapter.

One chapter is devoted to a reversal of treatment of eye-strain or brain irritation resulting from it induces the opposite results, success instead of failure to cure.

Altogether the book is quite an addition to the literature on this subject. It is neatly bound and contains 131 pages.

Literary Notices.

April Lippincott's Magazine.

Lippincott's Magazine for April opens with a novelette of extraordinary attractiveness to both men and women readers. Its title is "A Fool for Love;" its author, Francis Lynde. It deals with a railroad fight in the far West and its love interest centres in the chief engineer of the Utah Short Line and a captivating niece of the vice-president of the Colorado and Grand River Railroad, a man otherwise known as the "Rajah," who has fought his way to front and is disinclined to show mercy on "the other fellow." With love and loyalty pointing in different directions, it would be a nice question which to put money on. But, for the comfort of the gentler sex, it may be hinted that the story ends as it should.

"From the Pedestal," by Elizabeth McCracken, is a sweet and clever tale of psychologic trend, placed in Boston, though, for the matter of that, the difference between a man's love of one girl and his worship of another is the same all the world over, not alone at the Hub. "The Man Who Adopted Asia" is a thrilling adventure story of the Far East, from the pen of Will Levington Comfort, whose recent visit to the seat of war has been productive of some very interesting fiction. Arabella Kenealy contributes a bright society story entitled "Sylvia's Bridegrooms." In it a prospective bride tries her lover's patience to the breaking point. The result is that she is obliged to supply a substitute bridegroom, and, but for a lucky chance, her happiness might have gone under. An unusually successful surprised-at-the-end sort of tale is that by James Drexel Turner, called "A Dreamer." "Miss Sophy's Matrimonial Step," by Luellen Cass Teters, is a humorous picture of country life and a reluctant soldier swain.

Rosa Bonheur's personality possesses such attraction that a reminiscent paper about her under the title, "The Greatest of Women Painters," must meet with much favor. Its author is Theodore Stanton, the son of Mrs. Elizabeth Cady Stanton.

Contributions in verse are: "April in Paris," by Reginald Wright Kauffman; "Conscience," by Margaret Steele Anderson; "Two Voices," by Frank Walcott Hutt; "A Prairie Night," by Charles Curtz Hahn; "To Nancy," by Thomas McKean; "In April," by Marie Van Vorst; "My Psyche," by Charles H. Crandall; "A Marsh Blackbird," by Clinton Scollard.

The spring vintage of "Walnuts and Wine" bubbles with fun in various forms.

Abstracts of the Leading Articles of the Month.

Izal as a Remedy for Tropical Dysentery.

Vaughan, in the Indian Medical Gazette, has found this drug to be *facile princeps* the most reliable remedy, but that he cannot too strongly insist on the fact that small doses are useless, it being necessary to push the drug by full doses until relief is obtained.

The author has adopted three standards of dosage—viz., preparations containing 1½, 2, and 3½ drachms of izal emulsion in 8-

ounce mixtures of eight doses each, averaging thus 10⅔, 15, and 26¼ minims of izal emulsion per dose respectively. Of these he finds the last two most serviceable. Doses are given every three hours while awake, thus averaging about six doses from 6 a.m. to 9 p.m., and usually a seventh dose about midnight.

The writer mentions that the disinfectant preparation sold in the markets is quite as effective for treatment of dysentery as the "medical" izal, though requiring more careful combination in prescribing so as to cover the taste.

The author concludes by saying that, besides dysentery, he has used izal with success in diarrhœas of various kinds, in fœtid discharges from the bowels in various conditions, in cholera, and in acute croupous pneumonia.

Infant Milk Depots.

Brickdale (Bristol Medico - Chirurgical Journal) gives an interesting review of the work of infant milk depots, with a view to calling the attention of the profession to the following points in illustration of the persistent high death-rate among infants—viz:

"1. The mortality of children under one year is very high, especially in large towns, and has not decreased proportionately to the general mortality.

"2. It is highest during the first three months of life.

"3. It is much higher among artificially-fed children than among those fed on breast-milk alone.

"4. Breast-feeding is becoming less frequent, and for physical and social reasons is not likely to become much commoner at present.

"5. The birth-rate shows a marked and steady decrease."

After going carefully into the statistics representing the working of these institutions in Liverpool, York, Battersea, St. Helens, and Glasgow, and referring to similar ones on the Continent of Europe and in America, the writer offers the following summary as indicating the points of greatest practical importance in the working of them—viz:

"1. The co-operation of the medical profession and local hospital authorities is absolutely essential to the success of the undertaking. Out-patient departments and lying-in charities can enormously increase the scope of the milk depot, and assist in getting proper records kept. All medical men can unite in preventing the depots being used by those who can suckle their infants, and also in disabusing the parents of the idea that depot milk is a drug only to be used in desperate cases.

"2. Efficient house inspection is hardly less important. Misuse of depot milk is, unfortunately, not uncommon, and the general educational influence of well-trained and tactful lady inspectors is very great. It goes without saying that their duties must be clearly defined, and that they must not in any case assume the functions of medical advisers.

"3. Sales through local dairy shops should be avoided where possible. No control can be exercised over the customers in these cases, and it is significant that in Liverpool the only complaints as to the milk came from parents supplied in this way. On the other hand, there is no reason why the milk should not be on sale in the better quarters of the town at a price which would be profitable both to the depot and the middleman. This, I believe, is about to be done in York.

"4. It is probably better to dilute and heat the milk, but the terms 'humanized' and 'sterilized' should be dropped, as they are inaccurate and misleading. 'Modified' and 'autoclaved' might be substituted. As Dr. Ashby points out, poor people think 'humanized' milk must be as good as 'human.' And Robertson and Mair have shown that unless milk which has been heated to boiling point for half an hour is kept cool, bacteria which are dangerous to young animals rapidly develop in it.

"5. Last, but by no means least, the sources of the milk, if not owned by the municipality, should be under the strictest regulations; and the object should be to obtain a milk so free from contamination that the process of heating can be entirely avoided."

Significance of Scars of the Genital Region in the Retrospective Diagnosis of Syphilis.

Cooper (British Medical Journal) says: In diagnosing syphilis the usual course is to examine the skin and mucous membrane, and if scars are found in the genital region they are regarded as evidence of syphilis. On the other hand, their absence is sometimes looked upon as implying the absence of specific disease. Either conclusion without further inquiry may lead to error.

The primary lesion of syphilis is not in itself a destructive lesion and does not necessarily leave a scar at all. Although venereal disease is the chief source of genital scars it is by no means the only one; they may be due to balanitis, herpes, abscess, and injuries of various kinds, including the use of caustics and surgical operations. Venereal cicatrices are more common in hospital than in private practice. The absence of any trace of old primary sores occurs mostly among those who are of careful and cleanly habits. In such the chancre may heal per-

fectly when the site of inoculation is mucous membrane, as it is in the great majority of cases, especially if the sore be under cover of the prepuce and is not cauterized or otherwise irritated. Permanent marks are more often left when the seat of infection is the skin.

The soft chancre is probably the principal cause of genital scars owing to the irritating quality and ready autoinoculability of chancrous pus. They are usually multiple, whereas the primary lesion of syphilis is in most cases single. A syphilitic scar is generally round or oval, thin, non-adherent, and quite supple. On the skin it is often pigmented for some time after infection. Gummata may leave scars either on the penis or in the groins, but this rarely happens. Gonorrhea may be accountable for cicatrices as the result of associated abscesses. The scarring of balanitis may be considerable, and is usually accompanied by adhesions between the prepuce and glans penis. The marking of herpes is irregular in form and has a characteristic crenated border; that caused by suppuration of a sebaceous follicle is smaller than a syphilitic scar and is pitted. Suppurating buboes and periurethral abscess sometimes leave their marks; the latter are usually adherent and situated on the under surface of the penis.

He offers the following conclusions: (1) A single scar on the skin of the penis suggests syphilis. (2) A single scar on the mucous membrane also suggests syphilis—occasionally soft chancre. (3) Multiple scars on the mucous surface of the penis only suggest soft chancre. (4) Multiple scars on both mucous membrane and skin also suggest soft chancre. (5) Inguinal scars, together with scars on the penis, suggest soft chancre. (6) An inguinal scar without any penile scar (if venereal at all) suggests gonorrhea. (7) Extensive scarring of penis or groin, or both, suggests phagedena. (8) Genital scars, with scars on other parts of the body, suggest ulcerating syphilide.

Ethyl Chloride as a General Anesthetic.

Dansey, (Australasian Medical Gazette) according to this writer for the past four months ethyl chloride has been used in the Royal Prince Albert Hospital, of Sydney, with highly satisfactory results. It has been used as a general anesthetic for minor operations, and also for initiating ether anesthesia. Ethyl chloride has several advantages over nitrous oxide gas. It is quicker, cyanosis is absent, and it gives a longer narcosis, lasting from one to two and a half minutes. The apparatus is portable, and ethyl chloride is cheaper. It is less unpleasant to the patient, the recovery from narcosis is rapid, and it is less depressing.

He has given ethyl chloride itself in sixty cases in removing adenoids, opening abscesses, extraction of teeth, and exploratory punctures. The author uses an ordinary Clover's ether inhaler. The usual ebony plug at the side is replaced by one with a small hole eccentrically placed, into which fits a small conical peg. To fill the inhaler the indicator is turned to O and the small peg removed. Through this hole about two cubic centimeters of ethyl chloride is sprayed into the reservoir. Owing to the high volatility of ethyl chloride it is necessary to charge the inhaler just previous to the administration. The patient is told to take a deep breath, and the mask is fitted close to the face in the usual way; the indicator is then rapidly turned until it points to F. After the first few respirations the breath is generally held for a short time, but regular, deep breathing quickly returns. At first the pulse is slightly slowed, but it soon regains the former rate and remains full and steady throughout the administration; the color keeps remarkably good right up to deep narcosis; spasm and excitement are rare. The conjunctival reflex is soon lost and the pupil rapidly dilates. When the pupil is well dilated and the conjunctival reflex has disappeared, the patient is sufficiently anesthetized. Should the operation be one where there is no necessity for the removal of the mask, by admitting an occasional breath of air as the pupil becomes widely dilated, the duration of the narcosis may be prolonged.

Ether anesthesia is more pleasant if initiated by inhalation of ethyl chloride. The average time for the patient to come under the anesthetic is reduced several minutes. Spasm and excitement do not occur. The method of administration is the same as with ethyl chloride alone, except that when the patient is fully under the indicator is turned back to 1, and ether in sufficient quantity is quickly poured into the reservoir. Ethyl chloride in the semi-open mask sold for the purpose gives unsatisfactory results. It often requires 25 centimeters of ethyl chloride to produce an imperfect degree of anesthesia after ten to fifteen minutes' administration.

Physiological and Pathological Albuminuria.

Senator (Deutsche Med. Wochenschrift) says that it is now generally accepted that every normal urine must contain some albumin, though it may be present only in very small amounts. Now, physiological albuminuria is regarded much in the same way as physiological glycosuria, and among the causes that give rise to it in susceptible individuals are severe exertion of the lower extremities, eating and digestion of a hearty meal, menstruation, cold baths, and psychi-

cal excitement. The occurrence of albuminuria is to be regarded as pathological only when it does not take place under unusual conditions alone, and does not disappear promptly on the cessation of the particular stimulus that caused it. Orthostatic albuminuria is distinctly pathological and most cases of this or cyclical albuminuria are caused by a slight irritation or inflammatory state of the kidneys which may go on to recovery or may develop into a chronic diffuse nephritis. Physiological and allied forms of albuminuria are based upon congenital or acquired predisposition of the individual, which consists in an abnormality of various organs, such as the kidneys, the digestive tract, the blood-vessels, or the body fluids.

Gigantism and Goitre.

Ballett, in the London Medical Lancet, describes the case of a young woman aged nineteen years who was manifestly the subject of gigantism, but who in addition showed all the classical symptoms of exophthalmic goitre. The hypothesis of connecting the relation which exists between gigantism and exophthalmic goitre to hyperthyroidization is a natural one in this case. It is well known that ablation of the thyroid body with consequent hyperthyroidization brings about arrest of the development of the skeleton, and it is therefore rational to suppose that hyperthyroidization would produce the opposite effect. But in that case the association of gigantism with exophthalmic goitre should be frequent, at least in young subjects, which, however, is not the case.

A Posterior Incision in Operations for Appendicitis.

Sheldon (Brstish Medical Journal) recommends a posterior or lumbar incision in certain appendicitis operations. In this method a vertical incision exposing the quadratus lumborum is made along the outer border of the latissimus dorsi, and extending in an upward direction from the crest of the ilium. The second incision is made transversely close to the iliac crest, through the lumbar fascia and the transversalis, exposing the parietal peritoneum directly over the ascending colon and cæcum. It is stated that in cases of suppurative appendicitis the abscess, except in some very rare forms, is in direct contact with the cæcum, and can be opened more quickly and with less difficulty and danger through a posterior incision than by any other route. The abscess is by this method opened in the most dependent part, and the infected area is reached and treated without free exposure of the omentum or small intestine. In instances of the common and serious complication of retroperitoneal infection drainage is much more efficiently established through a posterior than through an interior incision. With the posterior incision there is less risk, it is held, of post-operative hernia.

Traumatic Lumbago.

Romer, in the London Medical Lancet, says that while no pathological proof was forthcoming of the assumption that these distressing conditions are brought about by adhesions in the muscular or tendinous structure of the lumbar region, the results of operation based upon this supposition are confirmatory in nature. The history of these cases generally records some strain of the back, necessitating perhaps a few days' rest. Most of such cases go on to recovery. But occasionally one is found in which the pain does not entirely disappear. Lumbar stiffness increases so that it eventually simulates chronic lumbago. The treatment of ordinary lumbago is in these cases obviously futile because of the absolute difference in the pathology. They resemble each other only in name. An anesthetic should be given both for the prevention of pain and for the insurance of complete relaxation. The patient is placed on his back. The leg on the sound side is flexed at the knee. The thigh is flexed on the body till the knee touches the chest wall. It is then brought back to the extended position. The leg on the affected side is now put through the same movements and comparison can then be made as to the difference in resistance. Both legs are now brought up together and both knees should be kept pressed against the chest for about a minute. The legs are now brought down again flat on the bed, and the patient raised to a sitting posture. The operator places one hand firmly over the affected lumbar region, while with the other he thrusts the patient back toward the bed. The hand on the small of the back causes the part to be extended. By this procedure the lumbar portion of the column is put through flexion and extension as the patient is pressed forward and backward. There is little pain after these manipulations. The after-treatment consists in rest, massage and graduated exercise.

A Case Illustrating Some Points in the Treatment of Movable Kidney.

Grey (Edinburgh Medical Journal) describes the case of a woman who had been operated on for movable kidney four years before being seen. For two years much relief ensued, but after this there was a gradual return of the symptoms. A month before being seen she had a fall, and from this time the complaint became greatly aggravated. Pain in the right side was severe; it was intensified on exertion and on standing. It was relieved by lying down. Severe retching came on in attacks, and on several

occasions she had fainted. During the attacks there was frequency of micturition, and at times she was suddenly compelled to pass large quantities of urine, after which the pain was lessened. In very severe attacks blood had been noticed in the urine. Her life was made wretched, and she suffered from sleeplessness. As she was a stout woman, palpation of the abdomen was difficult. There was great pain over the right side of the front of the abdomen, and this region was tender to pressure, as also was the lumbar region on the same side below the scar of the incision. No satisfactory examination could be made; only when the patient inspired deeply was there a suspicion of a movable kidney being present; then the tenderness was increased while the hand was pressed back into the region of the kidney. Chloroform was administered, but examination under these conditions gave no further assistance. The urine was normal. Operation was performed on December 4, 1903. The right kidney was found to be very firmly fixed (apparently) to the abdominal wall by strong fibrous adhesions. There were also two dense fibrous bands stretching across the front of the ureter, about 1 inch below the kidney. Further examination proved that the upper three-quarters of the kidney were quite free from adhesions. While this portion was being palpated, the kidney suddenly swung downwards and forwards, so that its upper pole faced to the opposite iliac region. Clearly, then, in the erect position, or on exertion, the organ might assume the transverse position described; the rotation of the kidney would thus tend to kinking of the ureter at probably two points. The gall-bladder and the appendix were both found to be normal. The under surface of the liver was studded with hard nodules, the size of a split-pea, and of greyish colour. The nodules did not strike the author as being either tubercular or malignant. The peritoneum elsewhere was normal. The kidney was freed from adhesions; in its lower portion the capsule had to be incised and shelled off. The fibrous bands over the ureter were divided. Strips of gauze were packed round the kidney, leaving its pelvis quite free. The ends of these strips were brought out of the posterior part of the wound, the rest of which was sutured. The gauze was kept in position for seven days. The strips were then removed under gas anæsthesia, and a thick drainage-tube was inserted down to the kidney. The patient remained recumbent for a month. All symptoms, except sleeplessness, disappeared, and she was able to return to her duties.

The writer says that, by many, the operation of nephropexy is regarded as somewhat useless. He says that the operation is followed by an unnecessarily large number of failu,es. In some cases the kidney is as movable as before the operation; in others, the organ remains apparently fixed, yet the symptoms continue, or even become aggravated. This latter result was that which followed in the author's case. He believes that failure to fix the kidney is due to the fact that no effort is made to remove the layer of perirenal fat which is found between the kidney and the abdominal wall. Should a fatty pad be left between the kidney and the comparatively fixed abdominal wall, it is not easy to see how success can be attained. He does not use strips or special supports to the lower part of the kidney. These secure strong fixation of the lower part, but unless similar fixation can be secured for the upper portion of the organ, the symptoms due to rotation, as observed in this case, may very probably ensue. During late years the author has always examined the condition of the gall-bladder, the bile-ducts, pylorus, appendix, and broad ligament, in all cases in which the diagnosis was doubtful. As he observes, it is often difficult to ascertain whether the case is one merely of movable kidney, or whether some affection of the parts just referred to is present as a complication. Palpation of these parts, which can easily be effected through the lumbar wound, will settle the matter.

Implantation of Tissue and Its Relation to Cancer.

Nichols (Journal of Medical Research) gives the results of a series of implantations of tissue in sixty-two animals. Both adult and fetal tissues were used. The implanted tissues were chiefly epithelial or mesenchymal tissues set free from their normal environment could acquire the power of unlimited growth and give rise to the formation of metastases. In some cases the implanted tissues proliferated, maintained their vitality and produced nodules analogous to dermoid cysts, and some were of large size. In no case was any nodule produced with unlimited growth or the formation of local or glandular metastases. He gives the following conclusions:

1. Certain types of epithelia (epidermis), both adult and fetal, can be experimentally removed from their normal position and implanted into another part of the same animal, and under those circumstances can maintain their "potentiality of growth," retain their peculiar character and produce nodules analogous to dermoid cysts or more complicated teratomata.

2. In no case has any epithelia of a highly differentiated function been seen to main-

tain its power of growth or to proliferate.

3. The "potentiality of growth" is greater in the case of fetal than it is in that of adult tissues.

4. In no case has any infiltration of surrounding tissue by the transplanted epithelia been seen, nor any tendency to epithelial metastases.

5. Certain fetal connective tissues (cartilage) can be transplanted in the same way as epithelial tissues and maintain their "potentiality of growth."

6. Transplanted fetal tissues do not reproduce the stage of development at which they are transplanted, but tend to produce the ultimate stage of their normal development.

Epiphyseal Separation.

Kirmisson (La Med. Mod.) says that in general fractures and luxations are less grave in children than in adults, but fractures of the elbow are very important in the young. Fractures of the forearm in children are usually greenstick, because the bones are more elastic and the periosteum thicker than in adults. Here the characteristic deformity is a posterior convexity of the forearm with no abnormal mobility or crepitus, while fractures of the clavicle are shown only by ecchymosis and pain on pressure. Instead of fracture of the fibrils and tibia, which are so frequent in adults, we meet with fracture of the femoral diaphysis in children, which heal easily under extension without shortening. Fracture of the neck of the femur in children is not so uncommon as was formerly supposed. Dislocation of the hip is occasionally seen in children, but more often dislocation of the elbow. On speaking of epiphyseal separations it must be remembered that between ten and thirteen years the diaphysis and epiphysis are two bony parts separated by the epiphyseal cartilage. These separations, which between seven and fourteen years are not the result of a direct force or of traction, but are caused by twisting and are accompanied by a large tear of the periosteum. The break in continuity, as shown by the X-ray, usually comes between the diaphysis and epiphyseal cartilage with sometimes a slight fracture of the diaphysis. These epiphyseal separations are particularly difficult from the point of view of diagnosis and treatment, as they are so near the joints. At the upper extremity of the humerus one must be careful to distinguish dislocation of the shoulder, and the upper fragment is so small that it is very hard to reduce. Besides the periosteum may be so torn that reduction is impossible without incision. Laceration of vessels and nerves is most frequent in separations at the lower end of the femur when amputation may be necessary. There are two ways of reducing the dislocation: (1) To use traction and reduce in extension; (2) pass the left arm under the thigh and draw the leg down with the right hand flexing at the same time. The second is usually the more successful. If the periosteum has been button-holed by the epiphysis an incision may allow reduction, otherwise resection must be done, which necessarily entails a subsequent shortening of the leg.

Reciprocal Relations of Heart and Kidney Lesions.

Bronowski (Presse Medicale) mentions the reciprocal relation of heart and kidney disease, and bases his conclusions not only upon post-mortem findings in human cadavers dying of heart disease, but by a series of experiments upon animals. The writer says that any interference with the heart circulation will in time so modify the composition of the blood as to produce stasis in the kidney, depressing the vitality of the latter and thus favoring disease as elimination of toxins by the kidneys becomes difficult or impossible. These toxins being stored up in the body naturally react upon the heart, establishing a vicious circle. The practical lesson is that not all attention is to be directed toward the heart, but that the kidneys should be treated as if nephritis were already established—that is to say, as little word as possible should be thrown upon these organs. On the other hand, when there is disease of the kidney heart complications are to be feared, and treatment should aim to throw as little work upon this organ as is consistent. The chief aim in both classes of cases should always be an attempt to regulate the circulation.

Massage in Cardiac Dilatation.

Fleming (British Medical Journal) says massage in weak heart and in cardiac dilatation are very valuable, The Nauheim method is generally accepted as sound doctrine. The method is cumbersome. Its proper administration in private houses is almost impossible. The cutaneous stimulation of the baths is believed by many to be the important element in the treatment, while as a matter of fact the massage with resistance movements and the graduated exercises are of the most value. He has performed a service in calling renewed attention to the value of these methods in cases of dilatation or valvular lesion where compensation was badly maintained, and in which rest and cardiac tonics failed to give further benefit. In the majority of his cases dilatation of both sides of the heart diminished under treatment. The action was more regular with more perfect contraction of the ventricles, dyspnea diminished, edema disappeared, and digestion improved. Movements of the arms and legs are limited

to those which can be carried out by the patient while in bed. No special movements are enjoined, and at no time is fatigue to be permitted. When the period of resisted exercise is over the patient gets up, and a few minutes' slow walking replaces the exercises. In one case described the heart was enormously dilated, extending 2¼ inches to the right of the sternum and 7 inches to the left of the midsternal line. The pulse was extremely irregular, and the slightest effort brought on a loss of compensation. With this patient massage was employed for ten days. This was followed by periods of passive and subsequently of resisted exercises. On the twenty-first day of the treatment the patient was allowed to rise. The size of the heart rapidly diminished. The patient is now able to be out of bed the greater portion of the day, and can take a moderate amount of exercise.

Gelatin in Hemorrhage.

Moll (Wiener klinische Rundschau) has given the subject of subcutaneous and intravenous injections of gelatin considerable study. The effect of the gelatin is to increase the fibrinogen of the blood and thus to increase its agglutinating power. A similar effect is obtained from other albuminoid bodies when used subcutaneously or by intravenous injection. Gelatin causes an increase in the coagulability of the blood, which reaches its maximum in from twelve to twenty-four hours, at which time the blood contains from two to three times its normal fibrinogen. Gelatin by the mouth has no therapeutic action. It is possible to use gelatin injections before operation so as to lessen the amount of blood lost. Before the association of physicians in Prague, he exhibited two clots of blood from rabbits, one of which had received gelatin injection, and the clot was firm, while the other was soft. The agglutinating power on the red corpuscles in the rabbit which had received the injection was also shown.

Haematemesis and Melaena in an Infant Two Days Old, Recovery.

Morris and Feldman (British Med. Journal) report this case: On Dec. 4, 1904, they were called to see a child, twenty-four hours old, which five hours previous to their visit had been attacked by severe vomiting of blood. It brought up about a tablespoonful of blood every hour, the attack being provoked by feeding. In the first attack the blood was of a chocolate color and partly coagulated. In the following attacks, which they had an opportunity to witness, the blood was of a bright red color and contained no air bubbles. The color of the stools was at first that of meconium, but was afterwards altered by the appearance of blood, which also stained the napkins.

The child was fairly well developed and, but for the subnormal temperature (97 deg. F.), did not at the time appear very much worse for the loss of blood. The fontanelle was not depressed and the heartbeats were regular. The mucous membranes did not look pale and did not bleed. There was no icterus and no history of syphilis, phthisis, or hæmophilia. The pharynx and tonsils were of normal appearance. There was no epistaxis and there were no fissures in the mother's nipples.

The suggestion as to the causes of melæna neonatorum are as follows: (1) Hyperæmia of the mucous membrane of the alimentary canal, due to sudden occlusion of the umbilical arteries brought about by too early ligature of the umbilical cord. (Kiwisch.) As, however, in the above case the cord was tied a good many minutes after the child was born, this hypothesis is untenable here. (2) Thrombosis of the umbilical vein by ligature of the cord before respiration has been fully established. (Landau.) (3) Congenital absence of the common bile duct. (Wickham Legge.) (4) The swallowing of blood from the maternal passages during parturition. (5) Infectious in origin and therefore febrile. (6) Gastric ulcer.

They believe that gastric ulcer was the cause of the hæmatemesis and melæna, as the attacks followed immediately after feeding and yielded to the ordinary treatment for gastric ulcer.

The Therapeutic Value of Relaxing Climates.

Williams (Edin. Med. Journal) says that factors as moisture, sunshine and exposure all take their share in influencing metabolic changes, and hence ought to be considered in the effort to guide the application of climatic treatment in any individual case. The usual "bracing climate" generally advised is without doubt refreshing and stimulating to persons in moderately good health; on the other hand, it may exercise a disastrous influence in certain pathological conditions. For chronic invalids, and particularly those suffering from chronic pulmonary or renal troubles, or chronic heart or nervous diseases, he advises a "relaxing climate." Its action is to decrease metabolism and to lower generally the activity of the vital processes. For instance, among pulmonary affections take emphysema. The moisture of the atmosphere in a "relaxing climate" acts as a sedative to the respiratory passages and, by minimizing changes in temperature, protects the patient from the extremes to which, in a "bracing climate," he would probably be exposed. Similarly in chronic

renal disease the relaxing climate both diminishes the amount of waste material produced in the tissues and assists the action of the skin and lungs in their compensatory excretory function. Hence the work of the damaged kidneys is diminished and the dangerous complications which are associated with renal disease are delayed. Again, in chronic cardiac disease the lowered function and diminished blood-pressure which attend on life in a relaxing climate relieve the strain on the cardiac muscle, and so favor its possibilities of endurance. In the treatment of the degenerative processes which affect the central nervous system the relaxing climate is the only safe medium. The vital forces have to be conserved so that the unfavorable movement of the morbid process may be checked. In neurasthenia and hysteria the therapeutic problem, so far as climate is concerned, is less simple. Temperamental considerations and local circumstances must be borne in mind, as also the mental attitude and reaction of the patient. The possibilities or otherwise in reference to suitable baths and other mechanical methods of treatment are also guiding influences in the selection of a suitable climatic station, and this more particularly in cases of chronic renal and chronic cardiac disease.

Manifestations of Rheumatism in Childhood.

Burnet (Brit. Jour. of Children's Diseases) relates several cases of rheumatism with a pronounced family history of the same trouble, as indicating that the hereditary factor must not be ignored. Pharyngitis and tonsillitis deserve to be more frequently regarded as rheumatic than they are at present. Tonsillitis is said to be more common in the rheumatism of adolescents and of adults, but pharyngitis in the child should always be looked on suspiciously, the heart examined, and the child kept in bed until the diagnosis is certain. He mentions pneumonia as possibly sometimes rheumatic, as one of his cases of the disease developed chorea subsequently. Psoriasis rarely occurs, in childhood at least, save in rheumatic subjects; and that it is a rheumatic manifestation is supported by the benefit which may result from antirheumatic remedies. Appendicitis also comes into his group of rheumatic affections in not a few cases. The writer says that cases of so-called gastroenteric spasm, in which the child complains of acute gastric pain after a meal and has an urgent call to stool, are often of rheumatic origin. Pain in the side or in the upper part of the chest is also considered to be a manifestation of rheumatism. Children of rheumatic heredity do not always present any definite signs of the disease, but are often nervous, irritable, sensitive, thin, subject to fits of violent temper, of a restless dispositien, constantly looking for fresh amusements. When this nervous restlessness reaches a certain maximum point it becomes associated with muscular movements, which, beginning in slight twitchings, gradually increase until a true chorea is established. The treatment advised for rheumatism is aspirin or sodium salicylate gr. x every 4 hours for several days, for a child of 5 years, calomel gr. ss-i 3 times a day, ice cap over precordia for cardiac symptoms, and codliver oil in convalescence.

Periamygdalar Abscess.

Thomson, according to the British Medical Journal, says that while the operation for the evacuation of a periamygdalar abscess (quinsy) is simple, safe, and satisfactory, yet many surgeons complain that it is difficult to find the pus, and that the operation is dangerous. The pus never forms in the tonsil itself, but is always in the areolar tissue between the tonsil and the pharyngeal aponeurosis. Frequently it is met with posteriorly in the prolongation of the posterior faucial pillar. But in the majority of the cases—over ninety per cent. – the abscess forms above and in front of the tonsil. The tonsil frequently shows signs of lacunar amygdalitis, and may be raised from its bed. Left alone the abscess generally bursts spontaneously into the mouth, the site of rupture often escaping detection. The site of election for opening the abscess is just external to the intersection of an imaginary horizontal line across the base of the uvula and another vertically along the anterior faucial pillar. The best instrument with which to open the cavity is a pair of Lister's sinus forceps—the blades being readily forced into the cavity, then opened widely and withdrawn—thus producing a vertical opening through which the pus escapes into the mouth. There is no risk of wounding a large vessel, and the patient more readily permits the operation. Pus may frequently be found as early as the third day.

Primary Pneumococcic Appendicitis with Pneumococcic Peritonitis.

Shaw (Brit. Med. Journal) mentions the case of a girl, aged eighteen, was admitted to Guy's Hospital on April 5, 1904. On the night of April 3, while in good health, she was seized with violent pain all over the abdomen, so severe as to "double her up." Early on the morning of April 4 she vomited; between then and admission she vomited several times and the severe addominal pain continued. There was frequent diarrhea, but whether this was the result of pur-

gation, or a symptom of the disease, could not be ascertained.

She was too collapsed to allow of complete examination. The pulse was 120, almost imperceptible; the respirations were 23, and thoracic. The temperature was 102 degrees. There was little abdominal tenderness or rigidity. There was evidently extreme prostration from a very acute abdominal lesion. She was too ill to operate upon and died a few hours after admission.

Necropsy.—There was acute general peritonitis, with thick buttery lymph, and about one pint of pale turbid fluid in the peritoneal cavity. The lymph was thickest in the region of the cæcum and appendix. The appendix was swollen, reddened, turgid, and buried in lymph; there were no adhesions or perforation.

Conditions Mistaken for Meningitis.

Baumann (Brit. Jour. of Child. Dis.) says: They include a case of typhoid fever believed to be one of typical tuberculous meningitis and demonstrated as such to students; a case of lobar pneumonia in which the tache cerebrale was marked; a case of bronchopneumonia with extreme head retraction, michal rigidity, strabismus and Kernig's sign; a case of influenza, with head retraction, rigidity of both legs, Kernig's sign, tache cerebrale, increased tendon reflexes and strabismus; and cases of mastoid disease, middle-ear disease, sarcoma of the brain, renal disease, and gastro-intestinal disturbance. Other conditions that sometimes closely ape meningitis are the hydrencephaloid condition of infants suffering from acute gastro-enteritis, roundworms, trichinosis, abscess of the brain, hysteria, retropharyngeal abscess, tonsillitis, teething, the exanthemata, particularly scarlet fever; and last of all, cases catalogued in hospital records as cases of "pseudo-meningitis," in which all the symptoms of cerebral irritation are present, and every possible cause having been excluded, a diagnosis of meningitis is arrived at,—then, for some unknown reason, the temperature falls, and the child recovers completely.

The Abuse of Milk in Infantile Therapy.

Guinon (Rev. Mens. des Mal. de l'Enf.) is opposed to the time honored dictate that milk is the "ideal," or the "perfect," food for infants and young children in any and every case. Not only does this apply to cow's milk, but sometimes to human milk as well. He gives numerous histories of children who not only do not thrive on milk but are attacked with serious gastrointestinal troubles from its use. In general these cases may be divided into four classes:—

(1) The child has appeared to do well on the breast or on sterilized or boiled milk up to the end of the first year. The digestion, however, has never been perfect and from time to time intestinal disinfection has been necessary, When the child has reached a light, mixed diet an indigestion appears. Ordinarily the physician puts the child back to an exclusive milk diet. In almost every case the digestive trouble increases.

(2) A child brought up on the breast has been habitually constipated, his appetite is poor and his digestion difficult. Instead of varying his diet, the exclusive use of milk is continued with the result that a gastroenteritis often develops.

(3) During the second year a child is eating eggs, soups, etc., which it digests well. Unfortunately, however, its sole drink is milk. This is given whenever he is thirsty, at meals and between meals. The milk does not quench his thirst, but he drinks it in increasing quantities. Finally his stools become fetid and sometimes he vomits, takes a distaste for milk and refuses it. In the latter case the intestinal indigestion disappears, but if he continues it the indigestion grows worse.

(4) For some reason the child has an intestinal infection more or less acute. He has grown better under proper treatment, but the milk has been resumed and the child continues to have abnormal stools with either constipation or diarrhea.

In nearly all the writer's cases the children's parents were in easy circumstances and the milk was carefully sterilized or boiled, and in case of breast-fed infants the milk appeared to be of good quality. Notwithstanding this the children were pale, listless, and illy-nourished, although many of them were fat. Vomiting, with fetid breath, occurred in many cases, while in all the stools were undigested. Anemia was almost always present.

His treatment was to withhold milk altogether for a time, or to decrease the quantity, usually giving it combined with farinaceous foods. Soups were given in most cases, and sometimes raw beef or mutton, yolk of egg or buttermilk. The intestine was disinfected with calomel or castor oil, and the anemia was treated with iron; or sometimes raw beef or mutton was relied on for this purpose. In nearly all the cases the children improved, and after a greater or less time a small amount of milk was borne, either raw or in milk gruels.

Treatment of Lupus.

Walker in the Scottish Medical and Surgical Journal recommends the use of oxide of uranium which can be prepared from one of the readily obtainable salts, such as the nitrate, and incorporated with a nega-

tive base, e. g., rosin or beeswax. The plaster leather having been prepared, a layer of the plaster of the usual thickness is applied of any desired extent. This is quickly covered with waxed paper gummed at the edges to enclose it completely.

Arguing from the photographic effects, the writer believes that if one took five minutes as the mean exposure to the x rays, and an hour as that of the specimen of radium which is in use in their department, it was apparently safe to make very prolonged applications of the uranium plaster without any appreciable risk.

He used it in the first instance on cases where the limbs were affected, though, of course, well aware that these form no very severe test of any remedy. The results were very gratifying, patches of fibroid lupus on the arms improving steadily under the plaster. At first the author applied it for twenty-four hours only; later applications of as much as three days and nights were found to be followed on the arm by no reaction. On the face, which was next treated, it was found that a slight reaction followed in some cases when the exposure exceeded twenty-four hours. But since the plaster is a somewhat prominent form of dressing, it is now his custom in out-patients to direct that the plaster be applied at night and removed in the morning. At the beginning the writer applied it directly to the lupus, but the discharge soiled and tended to crack the plaster, and having satisfied himself by skiagraphs that there was no interference with the rays he now encloses the plaster in waxed paper. The plasters may be used for months without losing their activity, a matter about which he was for a time in doubt.

The success of the application is very encouraging; apparently the risks are negligible, and the convenience to the patient is great. Lastly, the method has the great merit of economy. Mr Alexander's estimate is that the plasters can be made for the sum of one shilling. As their experiments show that a plaster is quite active after four months' use, it may be admitted that it will be hard to find a cheaper method of treating such cases of lupus as are suitable for it.

Prognosis of Ovarian Cystic Tumors.

Barnsby (British Medical Journal) mentions 32 cases of cystoepithelioma of the ovary, the common ovarian cyst. Clinically, half were diagnosed as innocent and half malignant, but sections were made from every tumor removed by the author, and carcinomatous degeneration was detected in 18, so that only 14 were benign or "simple mucoid epitheliomas." Thus, histologically the percentage of malignancy is 56.25, far above that recorded by other operators. Turning to results, 31 recovered from the operation and 1 died, 8 patients were alive and well over four years after ovariotomy, 17 alive and well within four years, and 6 showed signs of recurrence—the cyst had ruptured spontaneously or burst during extraction. The author believes that all suspicious cysts should be removed entirely as though solid without tapping. Potocki and Beuder (*ib.*) reported a very distinct case of sarcomatous degeneration of an ovarian cyst; the patient recovered from the operation, but no after-history was given. They referred to other cases, and quoted some where carcinomatous and sarcomatous degeneration were detected in different parts of the same cyst, whilst in Simoff's cases there were metastases of each class, sarcomatous on the peritoneum, cancerous in the liver. The prognosis of the most innocent looking ovarian cyst is, as these records show, a question about which we must not be too optimistic.

Diphtheria Antitoxin and Its Relation to Toxin.

Peck and Schwoner (British Med. Journal) say that hitherto, in most of the investigations recorded upon the inter-relationship of diphtheria toxin and antitoxin, the main stress has been laid upon the composition of the toxin, with the implied assumption that the value of the antitoxin was constant. But owing to the greater physical and chemical complexity of antitoxin as compared with toxin, the authors have felt that this assumption could not be taken for granted; they have therefore instituted a research with the object of discovering whether different immune serums did not exhibit differences on being saturated with one and the same toxin. As the result of their investigations they find that on fractional saturation of different diphtheria immune serums with one and the same toxin, saturation will in some cases be strictly proportional to the amount of the toxin added, whereas in others it will be disproportionate, and that accordingly in the one case the progress of saturation is graphically represented by a straight line, in the other case by a curve. This difference in the mode of saturation is independent of the constitution of the toxin, but is determined by the properties of the immune serums. But after partial saturation with toxin, toxolabile-immune serums yield toxostable antitoxin.

Radium in the Treatment of Skin Disease.

Danlas (London Medical Lancet) says that in his experience radium is of value in only three kinds of skin disease, namely, tuberculous leprosy, a form of epithelioma, and vascular nevus. The author says that radium is of value in these diseases only in

cases where they exist in a very limited form. Moreover, it is not superior to older methods of treatment. When the lesions in which it is of use are widely spread the x-rays give better results, and radium possesses merely a provisional superiority for use in cavities such as those of the nose or the larynx, which are difficult to reach with the x rays. If, however, radium were to become cheaper it would probably be preferred to the x-rays, for its application is much simpler, and practically no apparatus is required. But until such a desirable condition is a reality it may be said that the future is with radium and the present with the x-rays.

Chronic Intussusception Simulating Dysentery.

Barnett (Royal Army Medical Corps Journal) describes a case aged twenty-four, that was under treatment for varicose veins, but complained of passing blood per rectum.

The patient had had dysentery in South Africa in 1902, and had frequently attended hospital for chronic symptoms. He suffered from constipation, for which he used purgatives. He had passed blood for months, but it had not troubled him. There was no history of syphilis, and rectal examination showed no stricture, piles, ulceration, or tumor. The stools were fluid or semifluid, and contained blood and clots in varying amount. There was also mucus and shreddy matter looking like sloughs, but no pus. There was occasionally no blood in the stools first passed in the morning, the subsequent ones being almost pure blood, from which ulceration, high up in the large intestine, was inferred. Six to eight stools were passed in the twenty-four hours. The urine was normal. The patient was dark and anæmic, felt hungry, was not sick, but suffered from sleeplessness. There was no temperature, and other organs of the body appeared normal. The abdomen was rather empty and retracted, but nothing could be felt on palpation. Abdominal pain was occasionally present, slight in amount and varying in position. Tenesmus was sometimes complained of before stool, not continuous in the intervals.

Dieting and ipecacuanha produced no effect, and finally the lower bowel was frequently washed out with nitrate of silver and hot boracic solution. This seemed to improve the patient's condition, although he was a good deal troubled with retching, attributed to the ipecacuanha. After two months' treatment he was seized with abdominal pain, and signs of acute obstruction came on, from which he succumbed in three days.

At the autopsy no peritonitis was found. The stomach and intestines were normal to about 10 inches above the ileo-cæcal valve. From this point down to the valve a well-marked intussusception was found, dark blue in color, with patches of grey. The usual layers could be traced. The bowel was in a state of gangrene. The layers of the invaginated portion of intestine were well agglutinated, and on the outer layer a fine sandy, granular appearance was present. The intussusception was above the cæcum and appendix, which were normal. There was no sign of old or recent ulceration in the intestine, large or small. All other organs were normal.

The Use of Atropine in Puerperal Fever.

Drenkhahn (Therap. Monatsheft.) has treated successfully two cases of puerperal septicemia with atropine. The first case received in the course of nine days .06 grams of atropine, about .006 grams daily, that is about double the maximal daily dose. The second case received likewise large doses. He defends his practice upon the following observations and conclusions: Puerperal fever is, above all, a wound-infection of the uterus with a pure tissue mycosis. With complete rest of the uterus and neighboring organs it remains a tissue-mycosis which heals spontaneously without douching or other manipulations. Atropine is the ideal drug for producing rest of the uterus. Contractions of the uterus lead to toxemia and bactermia. The bacteria circulating in the blood and lymph streams may lead to tissue-mycosis in other organs. If the latter have already been infected, atropine still favorably influences the course of the uterine disease, and may even at times arrest the progress of the toxemia by inhibiting the absorption of the toxic material from the extensive surface of the uterus. It has no effect upon the secondary tissue mycoses. If menstrual colic be, according to Theilhaber, the result of a spasm of the circular muscle of the inner os, then atropine would be indicated for the relief of pain. One should not be afraid to give relatively large doses of atropine. There is no danger of producing uterine hemorrhage during the first few days following delivery. Frequently one mg. has but slight effect. Prolonged atropinization of the uterus has no effect on involvement. The only disadvantages that sometimes accompany the use of atropine in puerperal patients are disturbance of accommodation and vesical paralysis.

A Case of Lupus Erythematosus with Erythema Induratum.

Polland (British Journal of Dermatology) reports this interesting case:

The patient was a woman aged forty-

nine years, who had no family history of tuberculosis as regards her parents, but who had lost two sisters from lung disease. The present illness began five years before with the appearance of slight red spots on the face, which resembled insect-bites. Soon after tumors from the size of a pea to that of a hazelnut appeared on the arms and legs, and after persisting for some months disappeared. The condition of the face also improved, the patches disappearing, with the exception of a slight atrophy, which was left behind. The condition then relapsed, and all the symptoms reappeared, so that when she was seen she had typical lupus erythematosus of a mild type on the face, and on the legs, where there was a slight degree of varix, there were some nodules of distinct outline lying in the deeper layers of the skin, of a bluish-red color, and slightly tender on pressure. In no case was there any tendency to softening or rupture. A histological examination showed a fibrinous exudation, but nowhere typical epithelioid or giant cells. On the other hand, a large vein which lay in the part excised showed itself completely thrombosed, and filled with leucocytes.

The Treatment of Typhoid Fever.

Springthorpe (Intercolonial Medical Journal) gives his results, which are based on seventeen years' hospital experience in some thousand cases of the disease. The disease is usually "expectant," and independent of any routine use of antiseptics, antipyretics, drugs, or stimulants.

Dietetic.—The usual custom is to give the average typhoid patient some three or four pints of liquid food (milk with one-third broth or other proteid) in the twenty-four hours, in divided doses every two or three hours whilst awake. In some cases, which are attended with curds in the stools and marked distension, milk even when diluted and peptonized, does not prove a suitable food. For these he employed a sterilized hopped-malt extract for the last ten years. It has about the same nutritive value as milk, but contains more carbohydrate (in the form of maltose, dextrose, and lævulose); less proteid (in the form of peptones, para peptones, and amides), and not fat. It is sterilized, and inimical to the typhoid germ; it does not ferment or form curds; it is acid in reaction, absorbed from stomach and intestine, apparently without inducing peristalsis, and sedative to some extent from the lupuline (8 grains in 3 pints), which is allied to morphine. For a time boracic acid was added to it, but for the last year or so he has given it alone in 5-ounce doses every two hours. Its only drawback is its mawkish malt taste, which is not completely disguised by lemon or other fruit juices. With it there are no curds, no "pea-soup" stools (simply dark fluid motions), no distension, and, on the whole, better sleep and better convalescence. Later on in the disease, strained coffee, cocoa, bovril, plasmon, liquid peptonoids, and similar meat infusions may be added to the dietary; and when the pyrexia is over, advance through the semi-solid jelly and junket to fish, custard, meat, etc. In slight cases an increase is made in the diet almost as soon as the temperature has fallen to normal, but in all other cases a fortnight is allowed to elapse before commencing solid food.

Joint Affections.

Owen (British Medical Journal) says that the family physician often makes mistakes in not recognizing early and treating promptly diseases of joints. He is too often satisfied with the use of arnica or iodine—two of the greatest impositions in the pharmacopœia. Wasting of the muscles which control the joint is an early and interesting sign of joint disease, but it can be clearly seen only when both sides of the body are seen at the same time. In the case of a fat child the eye alone may fail to make out the wasting; grasping the limb with the fingers will always demonstrate it. The sound side should always be examined first, in order to gain the patient's confidence. If the skin is not hot, if there is no bulging and no tenderness on pressure, then the trouble has quite passed off, and movements may be restored to the joint. But this must be done gradually. Inflammation of the shoulder is more apt to escape being found out than inflammation of other joints. A good evidence is that when the patient raises both arms to the level of the shoulder the angle of the scapula on the bad side begins to move with the humerus long before the other. When the disease is active, it will be well to protect the shoulder by moulding on a leather shield. In affections of the wrist there is always a great temptation to use the hand; in most cases therefore the hand should be fixed in a splint, preferably moulded of undressed leather. It is almost certain that when the joint of a child or young adult is the subject of a quiet lingering inflammation, the cause is a tuberculous affection; this is especially true when there is a history of tuberculosis in the family.

The Successful Use of Adrenalin Chloride in a Case of Plague.

Bahadurji, in the Indian Medical Gazette, says:

"Recently my attention was drawn to the published report of Dr. K. C. Bose on the successful use of another preparation of the suprarenal gland, the solution adren-

alin chloride (P., D. & Co.). Encouraged by the knowledge that it had proved so successful in the hands of Dr. Bose, I tried this preparation in a case of plague recently with astonishing results. A lady (21) came under my care on the second day of fever, with tenderness in the right axilla. On examination, infiltration could be felt along the course of the axillary vessels, which developed on the next day into a small bubo. The diagnosis of plague was confirmed by Dr. Nariman, of Parsee Fever Hospital (Special Plague Hospital), and we agreed to put the patient on adrenalin at once. The pulse, which was 132 to 140 and soft and irregular, fell after the third dose of solution adrenalin chloride (20 minims for the first dose and 10 minims subsequently every two hours) to 98, became firm and regular both in rhythm and volume. The temperature, which kept between 103 deg. and 103.5 deg. the first day, was reduced to 102 deg. to 102.8 deg by five-grain doses of euriacol carbonate, three hourly at first, and subsequently half doses till 100 deg. was touched on the fifth day of the disease, when the euriacol was discontinued. The case made an uninterrupted recovery, the temperature touching the normal line on the 8th day. The solution adrenalin was continued in five minim doses two hourly until the pulse fell to 82, then three-minim doses were given four times a day until the twelfth day.

"The point of interest is the rapidity with which the solution adrenalin chloride acted on the circulatory apparatus and the consistency and persistence of its action. The preliminary vomiting and diarrhea subsided on the tenth day altogether. Glycerin and belladonna in equal parts were applied to the bubo, and poultices every two hours.

"In adrenalin we have then a cardiac stimulant and tonic of the best and non-irritant kind, displacing the nauseous and nausea-producing digitalis, and is well worth trying. I need hardly mention that no other cardiac stimulant was administered, not even alcohol in any shape."

Justification of Vaginal Total Extirpation of Carcinoma of the Uterus.

Schauta, in the British Gynecological Journal, gives the results of a great deal of anatomical research into the conditions of the glands in uterine cancer. In a very large number of available subjects, examining not only those local glands which are not within the reach of surgical interference (the lumbar celiac and superficial and deep inguinal glands), it appeared that in 35 per cent of the cases in which the disease had attacked the glands of the first line, those of the second line were also carcinomatous; in 8.3 per cent the glands of the second line were affected, though those of the first were free. In 43.3 per cent none of the glands suffered, while it was only in 13.3 per cent of the cases in which the first line were diseased that the second were entirely unaffected. Hard, enlarged, infiltrated glands often proved not to be cancerous, while foci of the disease were found in quite small ones; and such foci were found not only in the glands but in the connective tissue, lymph spaces, and even in the veins between them.

These results show that the complete radical removal of carcinoma of the uterus, with all carcinomatous glands in relation with it, is possible only in the most exceptional cases in which the glands are affected at all.

Microgastry.

Bendersky, in the London Medical Lancet, gives the results of some researches which he has made into the condition of primary microgastry—i. e., abnormal deficiency in the size of the stomach. By means of auscultatory percussion he has recognized the existence of stomachs the lower border of which was at a distance of six, eight, or even ten centimeters above the umbilicus. The cases were mostly women. The diminution in the capacity of the stomach results in its being impossible for that viscus to contain the normal quantity of food, with the further consequence that vomiting is frequent, but is not accompanied with preliminary nausea. The vomiting may in fact be called automatic, and the patient feels none the worse for it. In some cases vomiting occurs ten times per diem, and a very rebellious hiccough is often associated with the condition. He proposes as the best treatment that the meals should be very small, but given at frequent intervals. He is in the habit of washing out the stomach with small quantities of warm water in order to lessen its hyperexcitability.

Primary Genital Tuberculosis in Children.

Allar (British Gynecological Journal) has collected nineteen cases of primary tuberculosis of the female genitalia, and reports another in a girl aged eleven years who died from pneumonia. At the autopsy the lungs were found studded with recent tubercle, and there were a few caseous nodules about the trachea. There was evidence of old tubercular peritonitis. The uterus was enlarged and its cavity distended with caseous matter, and the mucosa contained numerous tubercles. Both tubes were affected, but the ovaries were free from the disease; the vagina, external genitals, and urinary tract were also free.

The Influence of Red Light on Vaccination.

Roesler (Wiener klinische Wochenschrift) says Goldmann recently reported his experience in vaccinating forty children in a photographic dark room and afterwards bandaging in red. In these cases he found no inflammatory action which was present in the control cases. Other investigators have obtained like results. In Goldmann's cases, those vaccinated under red light and the red bandages removed a few days later, ran the ordinary course, as did those vaccinated under the red light and not bandaged. In those cases, however, where the red bandage was retained until after the pustular stage, he found the modified course.

The writer vaccinated five hundred men in the day-light, and after the lymph died applied the bandages. One half of these men were bandaged with red ganze covered with red gelatin wrapped in gauze. The other half were not bandaged. On the eighth and ninth day a distinct difference was noticed in the two groups. Among the red bandaged cases only six vaccinations were negative, while twenty-two were negative among the others. The pustules dried more quickly and had only a small inflammatory area. The auxillary glands were not enlarged or tender in any of these cases. The pustules did not become confluent and were much smaller and the scar was small, deep and typical. He says that his investigations show that the red light exerts a favorable influence over the course of vaccination and that its influence is not exerted on the lymph itself at the time of inoculation, but at the time the organism is infected.

On the principle that the red light limits suppuration, the author treated some cases of wounds from horse bites, which invariably suppurated. Under the red light treatment the swelling and redness were lessened and the wounds were decidedly smaller and covered with only a slight amount of pus.

Acute Dilatation of the Heart.

Starck (Muenchener Medizinische Wochenschrift) says the question as to whether the human heart can undergo an acute dilatation, and quickly return to its normal size, has been widely discussed of late, but no definite decision has been reached. That the heart can undergo gradual or sudden enlargement as a result of valvular lesions, or muscular involvement, and under proper hygienic and therapeutic measures return to its normal size has been determined without doubt. The view that it can enlarge and diminish in size within a few minutes or hours is as enthusiastically upheld by some as it is opposed by others. Schott conducted a series of experiments on bicycle riders in which he claims to have shown conclusively that such rapid changes can take place in the heart.

He reports a case of a student in whom a dilatation of the heart occurred during a duel, and within eight hours returned to its normal size. It is probable that the heart in this case had been greatly weakened by attacks of influenza, scarlatina and enteritis and had often been overtaxed through the exertion of bicycle rides, etc. He believes that the psychic element played a great role in the production of the sudden cardiac changes. The patient had often undergone physical exertion as severe as on this occasion, but the same mental state did not exist.

The rapid return to the normal size is the point of chief interest in the case.

Spinal Analgesia in Gynecological and Obstetrical Practice.

Stolz (Archiv f. Gyn.) says that this method has been used by the author in 155 gynecological and 25 obstetrical cases with very satisfactory results. (1) Spinal analgesia with 0.05 to 0 08 of tropacocaine dissolved in the cerebrospinal fluid, is not dangerous and only in exceptional instances is followed by any unpleasant after-affects. Larger doses increase the effect both in length of time and intensity; larger amounts of fluid the extent of the area of analgesia. Therefore as many centigrams of cerebrospinal fluid are to be employed for the solution as the number of centigrams of tropacocaine it is intended to inject. (2) For operations around the anus and external genitalia which do not consume longer than forty-five minutes, an injection of 0.05 of tropacocaine will be sufficient. For longer operations, from 0.07 to 0.08 may be necessary. Abdominal section could be done without disturbance in 56.3 per cent of the cases. In 30.9 per cent general narcosis was found necessary in addition and 12.7 per cent spinal analgesia was found insufficient from the outset. Inhalation anesthesia as a supplement to the spinal form is very satisfactory, and only a very small quantity of the anesthetic is necessary. (3) Lumbar puncture is accomplished with more difficulty in pregnant, than in non-pregnant women, because it requires special attention to antisepsis and special skill in its application, which is not usually possible outside of the hospital. It is therefore less practical than the inhalation anesthesia. The injection of 0.05 tropacocaine during labor produces analgesia of the external genitals for an hour afterward. The labor pains are much affected but the abdominal pressure is absent and only is brought into

action by voluntary effort. In two cases of eclampsia, no effect was observed on the convulsions.

A Contribution to the Diagnosis of Renal Tuberculosis.

Milchner (Berl. klin. Wochenschr.) gives the case as an example of the error to which the ordinary methods of staining tubercle bacilli may lead, especially if applied to the urine. The patient, a girl eleven years old, suffered from what was thought to be renal tuberculosis. She was emaciated and anemic; the left kidney was enlarged, palpable and tender; the urine was thick with pus, and contained bacilli that stained red with carbol fuchsin and Gabbet's fluid. A ureteral catheterization showed the left kidney to be severely injured and to be secreting pus, whereas the right kidney was normal. A nephrectomy was done. At the operation, however, no tuberculous kidney but a hydropyonephrosis, with a kinked ureter, was found. The child recovered rapidly and completely.

The bacilli found were clearly smegma bacilli, for even after the operation they were found in the clear and normal urine as well as in the secretion between the labia.

Paralysis in Children.

Taylor (The Lancet) calls attention to certain essential characteristics of the paralyses of children, which justify their being viewed from a special pediatric standpoint. (1) These paralyses occur in immature and growing structures, hence the greater deformity caused by the disease. (2) The paralyses in children, aside from embolism due to heart disease, and syphilitic endarteritis, are usually the result of lesions of the nervous system proper and not of diseased conditions of the blood vessels, which are often seen in adults, (3) There are certain paralyses which are truly birth palsies and do not occur in the adult at all. (4) In some children there appears to be an inherited tendency to early death of parts of the nervous system—the ambiotrophy of Gowers. Friedreich's ataxia and Marie's cerebellar ataxia are examples of this. (5) The same inherited tendency to early death appears in certain muscular structures, and is shown in the various muscular dystrophies.

Examination of the Gastric Contents in the Aged.

Saidelin, according to the Berliner Klin. Woch., has examined the stomach contents of a number of persons over fifty years of age suffering from diseases not connected with the stomach, his idea being to find out whether or not there is any deterioration of the gastric secretion that might be ascribed to age. As is well known, one of the most common symptoms, and the one on which the greatest stress is usually placed, is the diminution or absence of the hydrochloric acid in the gastric juice. The author found that achlorhydria existed in quite a large proportion of cases in the aged, and was not infrequently associated with arterio-sclerosis, though the exact relationship could not be explained. The author's conclusion is one of great importance—that in elderly persons care must be taken in giving diagnostic significance to achlorhydria as symptoms.

Cardiac Thrombosis and Embolus of the Abdominal Aorta after a Malignant Diphtheritic Angina.

Marfan (Annales de Med. et Chir. Infant) mentions the case of a boy of six years, with no antecedent history of importance. The child presented all the symptoms of a malignant diphtheritic angina, without involvement of the larynx, and was treated actively with antidiphtheritic serum, with the result that the local and general condition rapidly improved. On the tenth day there were signs of palatal paralysis; on the eleventh, cardiac irregularly with fetal rhythm; on the thirteenth day the child was suddenly seized with terrific pain in the centre of the abdomen, accompanied by marked prostration. The diagnosis of perforating appendicitis, or diphtheritic-paralyses, were rejected and a tentative diagnosis was made of cardiac thrombosis followed by embolus. The boy died the following day. At autopsy both auricles were found to contain freshly formed fibrinated clots: the apex of the left ventricle was filled with a dark granular clot slightly adherent to the endocardium. There was an interstitial and parenchymatous myocarditis with some endocarditis. Below the cardiac trunk the aorta was filled with a clot which descended into the iliac arteries, on the right stopping at the iliac bifurcation, on the left going as far as the external iliac and hypogastric arteries, and filling both mesenteric arteries. The embolus was soft, non-adherent and in no place was there any endocardial lesion.

Sudden and Unexpected Death in Children.

Tubby (Brit. Journal of Children's Diseases) deals with this subject under the following headings: 1. Circulatory Conditions: (a) Abnormal blood conditions, such as hemorrhages due to congenital syphilis, hemophilia neonatorum, true hemophilia, pyemic infection of the stump of the umbilical cord, or persistent hemorrhage from the cord or intestine associated with jaundice due to congenital stricture or obliteration of the bile-ducts. In infantile scurvy

the extent of the hemorrhage or its location in such a situation as the brain may cause death. (b) Spontaneous hemorrhage includes, besides the above, bleeding from gastric or duodenal ulcer, tuberculous ulcers of the jejunum, and in older children that due to sloughing of the pharynx and tonsils as a complication of severe scarlet fever or due to noma. (c) Post-operative hemorrhage is regarded by the writer as a preventable cause of death due, in some cases, to an attempt at brilliancy in operation with lack of thoroughness. (d) Thrombosis and embolism may occur during injection of nævi or during electrolysis, or in acute intraabdominal inflammations. 2. Shock may be due to (a) cold, exposure, and undue delay in operating; (b) emptying cavities filled with fluid too rapidly; (c) washing out cavities The writer dwells particularly upon the danger of irrigation of the pleural cavity, and cites his own experiments upon dogs. These showed that while sterilized salt solution produced little unfavorable effect, and sterile water and boracic acid solution slightly more, the use of even a small amount of tincture of iodine in the irrigating fluid might cause sudden death, and a 1-40 solution of carbolic acid acted as rapidly as hydrocyanic acid. 3. Toxic Conditions include (a) chemical poisons and irritants. Carbolic acid should never be used as a wet dressing for children. Its local application may cause erythema, vesication, sloughing of the skin of gangrene, or absorption through the delicate skin, result in poisoning. Some infants are very susceptible to iodoform, and fatal results have followed its absorption from the bladder. (b) Toxic poisoning includes certain cases of unexpectedly sudden death occurring several days after operations for appendicitis. Several cases are reported, in all of which the patients were doing well and suddenly fell dead. He believes these cases as due to development of a poison of active nature and cumulative effect, and makes no mention of the possibility of embolism. Uremia may result in unexpected death after operations otherwise safe. 4. Infective Conditions. These include development of acute tuberculosis or tuberculous meningitis within a few days after operations upon tuberculous adenitis or bone lesions. Tetanus in the new-born, due to umbilical infection, is now rare. Angina Ludovici and acute malignant edema, especially after fractures, are causes of sudden death. Pyemia in children is often rapidly fatal. He has seen a death within 48 hours following acute necrosis of bone. Umbilical arteritis, lithotomy and litholvity operations are other causes of pyemia. Infection may occur after even a simple operation, as in one cited, in which an operation for adenoids was followed by cervical cellulitis and double empyema. 5. Mechanical Conditions include entrance of foreign bodies into the air passages, sudden obstruction by large papillomata of the larynx, pressure upon the trachea or bronchi of tuberculous lymph nodes, bursting of a caseous node into these structures, large thyroid, persistent thymus, and asphyxia such as occurred in a child whose hands had been tied to prevent handling a wound, and who was found dead, lying with face downward buried in the pillow. 6. Conditions referable to the nervous system include cerebral hemorrhage during labor or from hemophilia, rupture of a cerebral abscess into the lateral ventricles or of a cerebellar abscess; sudden escape of cerebrospinal fluid due to opening lateral ventricle in dressing a brain abscess or due to accidental incision of a spina bifida underlying a nævus. 7. Rare Causes are; Aspiration of air into the veins during operations for cervical adenitis, acute peritonitis from inflammation of an undescended testis, gonorrheal salpingitis, and sudden suppuration and rupture of a dermoid cyst.

Maternal and Fetal Prognosis in Infection of the Amniotic Fluid.

Cova, in the Annali di Ostet, e Gin., gives the treatment of 27 cases of infection of the amniotic fluid in five years at the Clinic of Florence. Of these, 22 recovered and 5 died; of the children, 5 lived and 22 died. The condition is the result of the premature rupture of the membranes, and the prognosis is worse the longer before labor it occurs, since the opportunity for infection is of greater duration. Infection is usually brought about by examinations or manipulations in the vaginal canal to effect delivery. If the membranes rupture during pregnancy, if there are no uterine contractions, and if no examinations are made the danger is slight. In labor the intermittence of the pains causes an aspiration of germs from the vagina with liquids. Gonorrhea, placenta previa, position of the fetus other than vertex, such as breech, which is not closely applied to the superior strait, monstrosity of the fetus, carcinoma in the putrefactive stage, lacerations of the cervix, cutting the cervix to facilitate delivery, all act as predisposing factors to the infection. The condition is diagnosticated by fever, rapid pulse, dyspnea, fetid discharge from the vagina, and tympanites of the uterus from presence of gas. The prognosis is worse the longer the condition lasts. The microorganisms found in the amniotic fluid may be streptococci, staphylococci, bacterium coli, bacillus ærogenes capsulatus, sarcina lutea, etc. The most severe infections

are caused by the pus-producing germs and the ærogenes capsulatus. The presence of gas in the uterus is a bad sign, as is excessive distention, or the death of the fetus. Complications, such as albuminuria and eclampsia, render the prognosis worse. Death may result from the suction of gas into the veins. Placenta previa increases the gravity of the case to a marked degree. Death of the child generally results, apparently from prolongation of labor, possibly from the absorption of poisonous materials from the amniotic fluid or from the circulation of the mother. Preventive measures are all such as tend to maintain the integrity of the sac. After rupture, rest in bed and protection of the genitals by sterilized compresses. No interference to bring on labor is justifiable as long as sepsis does not exist. When it occurs the indication is to dilate, extract and disinfect the uterus as rapidly as possible.

Pregnancy with Anomaly of the Generative Organs.

Besta (Giornale Internaz. delle Sci. Med.) mentions a case of interest because of the occurrence of pregnancy in a female, so deformed as to have neither bladder nor vagina. There was complete extrophy of the bladder, there being only an area of modified mucous membrane of a red color, about ten centimeters in diameter, over the lower part of the abdomen. In the lower part of this area were situated two small orifices, from which the urine came away drop by drop. To indicate the vagina there were only two short tabs of skin, just below the vesical surface, covered by a few hairs, and below this a very small opening a few millimeters in diameter, from which menstruation had occurred regularly from the age of 18 years. This orifice was about 12 centimeters from the anus. There was entire absence of the pubic arch, the bones being separated in front about four fingers' breadths. By palpation of the abdomen, when the patient presented herself, in about the seventh month of pregnancy, the uterus could be felt in the center of the abdomen, at the level of the umbilicus. The fetal heart sounds were heard, and labor pains had commenced. Examination by the rectum caused to be felt a soft mass pressing on the perineum, which appeared to be the foot of the child. By the use of a sound it was found that the little foramen that represented the vagina, extended to a depth of 6 centimeters toward the anus. The pains increased until there issued from the foramen a liquid consisting of amniotic fluid, meconium and blood. Chloroform was given, and the perineum was incised for a length of six centimeters from the foramen toward the anus. The fetus was delivered feet first easily, with some pressure at the nape of the neck when the head descended. The placenta and membranes were delivered at once, complete, and the uterus contracted. The fetus was dead. An attempt was made to form a shallow vagina by stitching together at the sides of the incision the mucous membrane and skin, but the constant flow of urine prevented healing. The patient was well in three weeks' time, and at the end of three months presented a moderate degree of prolapsus uteri. It is interesting to note that impregnation took place where there was absolutely no vagina. The results of operative procedures in such cases are a prolapse of all the pelvic organs, which it is impossible to hold up either by surgical or by orthopedic means.

Bilateral Separation of the Lower Epiphysis of the Radius.

Walker (Brit. Jour. of Children's Diseases) describes the case of a patient 15 years old. Anterior splints were applied and removed 3 weeks later, when there was found to be silver-fork deformity with backward displacement of the lower radial epiphyses and firm union with the shafts in this position. Seven weeks later the deformity was less marked and movements of the wrist joints were perfect. The deformity in these cases usually disappears completely. The serious question of the arrest of growth of the shaft of the bone with consequent distortion of the limb must always arise in these cases. There is no very precise knowledge of the factors which govern the arrest of growth in separation of the epiphyses. Severe comminution, destruction of the soft parts, and suppuration are naturally followed by impaired activity of the injured epiphysis, but in simple detachment of the radial epiphysis the after result varies considerably. The radius has been stunted in growth after simple separation with little or no displacement, and in other cases, where the epiphysis has been completely displaced, the injury has not interfered with the full development of the bone. It is, therefore, impossible to say in a case like that just described whether arrest of growth with its serious deformity may not take place.

Vaginal Ovariotomy.

Burger (Munch. Med. Woch.) has performed this operation a great many times and his results are so favorable that he is an earnest advocate of the technique. In this series of 50 cases the tumor was 13 times recorded as having the dimensions of a man's head. In 2 cases it was double this size, and in 6 it was described as multiple cystoma. The author says that the indica-

tion is pushed too far by some writers, who urge that in all cases a vaginal procedure is to be elected. Great care should be taken before the puncture of a cyst to protect the adjacent tissue from contamination with the pultaceous contents. The dermoid detritus and the colloid substances are very apt to cause serious disturbances, such as the production of contact metastasis and elevation of temperature. In cases of small tumors, which are still in the true pelvis and consequently lie posterior to the uterus, making them accessible with more difficulty, the writer recommends the posterior vaginal incision in order to come directly upon the lower pole of the cyst. In treating the peduncle silk ligatures were used. In 4 of the operations the angiotribe was employed, but with poor results, as secondary hemorrhage necessitated the application of sutures. In 84 cases of simple ovariotomy there were no fatalities. In 26 operations removing the uterus 3 cases were lost.

Rapid Dilatation of the Cervical Canal and the Choice of Methods for the General Practitioner.

Stockel (Berl. Klin. Woch.) describes the methods of rapid dilatation of the uterus. Rapid dilatation is now employed much more frequently than formerly. It was then resorted to only when there were serious dangers to life. The methods have been so much improved that it may now be used without difficulty or danger, and nature may thus be assisted much more frequently. Methods of dilatation fall naturally into two groups: dilatation without cutting of the tissues, and dilatation with the use of the knife on the cervix. In the first category belong Bossi's method, and dilatation by inflated rubber bags. To the second belong the radiating incisions of Duhrssen and his vaginal Cesarean section. Of the radiating incisions it may be said that they result in severe hemorrhages, dangerous to life and difficult to control. Vaginal Cesarean section is neither difficult nor dangerous, but the indications for it are few. Bossi's dilator is a metallic instrument with four arms, placed close together when the instrument is introduced, and separated gradually by a mechanical device, the amount of dilatation accomplished being indicated by a scale. The instrument is not as yet fully adopted by the general practitioner, and has not as yet been thoroughly studied by gynecologists. Among those who have employed it there are great differences of opinion as to its value and the indications for its use. Leopold has reported very favorably upon its use in 80 cases. Ehrlich recommends using it only where there is danger to the life of mother or child. According to him eclampsia is the most important indication for its employment. Others are tetanus uteri, sepsis during labor, contracted pelvis, perhaps placenta previa. Dilatation is absolutely necessary for the application of the forceps, and version does not give as good results as forceps, the life of the child being often sacrificed, and ruptures more frequent. This instrument rarely causes rupture of the cervix. Hence it may be used preparatory to forceps. V. Bardeleben has had results of quite an opposite nature. He states that the uterine contractions do not succeed the dilatation in proportion to the amount of opening obtained; that cervical tears are easily produced and are frequent; that the method is not favorable to the child; that following its use most women suffer from metritis and other inflammations.

Congenital Trophic Edema.

Grunbaum (Brit. Jour. of Children's Diseases) gives an account of three cases said to be of this character. In none is the condition of the urine mentioned. Case 1. Male, 3 months old, symmetrical edema of the feet. Case 2. Female, 5 years of age, symmetrical edema of lower extremities from middle of thighs down, increased by the upright position; no thickening of the skin; no change in sensations of touch, pressure, heat, cold or pain. Blood examination showed only about 49 per cent. of polynuclear leucocytes and 6.5 per cent. of eosinophiles, but was normal otherwise. Case 3. Male, 6 months old, brother of preceding case. Symmetrical edema of legs and feet with cutaneous thickening. According to the writer, the following classes of cases have been described: (1) Congenital hereditary edema: (a) symmetrical, (b) asymmetrical; (2) trophic edema developing in later life; (3) persistent hereditary postural edema; (4) segmental edema; (5) scleroderma with edema.

Functions of the Female Breast.

Rommel (Munch. Med. Woch.) gives the results of the treatment in the first year of the new Infants' Hospital at Munich. Breast feeding is becoming less and less frequent. It has been estimated by Ehrlich and others that from 60 to 80 per cent. of mothers either cannot nurse their children or have not enough milk for them. On the other hand, the results of artificial feeding are often bad. The regimen employed in the Infants' Hospital was successful in enabling all the mothers to nurse their own children, and in some cases two and three others were nursed at the same time. Most of these mothers came from the Krankenhaus immediately after their discharge from confinement, from eight to ten days after labor. Many of them had very little milk

when they came, 100 to 200 grams only. Soon after reaching the hospital the milk began to increase until it reached from 1,200 to 4 000 grams in 24 hours. The patients were not well nourished, belonging to the poorer class, with bad teeth and other signs of poor nutrition. The diet was made as nourishing as possible, with a good amount of albuminous and fat-producing materials. They drank from two to two and a half liters of a mixture of water and milk per day. He believes beer is allowable. No galactagogues were used. Massage is of the greatest value, stroking the breast radially toward the nipple and kneading it, preferably when empty. That the child should nurse well is important; a strong nurser gives a good milker. Only one breast should be nursed at a time, so as to empty the breast entirely. The intervals should be long between nursings. Each nursing should last not more than ten to fifteen minutes. The absence of fissures and abscesses of the breast he considers to be due to the fact that that the children's mouths were not washed out. He says that this gives rise to denuded spots of epithelium and stomatitis, from infections by strepococci, etc., and that this infection is communicated to the breast.

Decrease of Gonorrhea Among the Prostitutes of Dorpat Since 1898.

Strohmberg (St. Petersburger Medical Woch.) here records the results of careful examinations and treatment of all the prostitutes licensed in Dorpat from 1898 to the present time. He shows that from 1897 to 1899 the percentage of condylomatous syphilides has decreased from 33 per cent. to a minimum of from 21 to 26 per cent. The author says that gonorrhea has also diminished. New regulations as to the control of prostitution have been made in Russia since 1903 Control of venereal disease can only be expected by investigation and regulation of its sources. The source he believes to be the mass of prostitutes, who carry infection from one to another, daily increasing the number of its victims. Only by careful physical and microscopical examination of all prostitutes can we expect to gain anything in our fight against venereal disease. The modern enlightenment as to sexual control, the proper teaching of the young, and the interest taken in convalescent homes for prostitutes, are all favorable signs. Yet there is much opposition to the methods of license and examination of these women. For the suppression of venereal disease we must have a knowledge by the patient, of her disease, a willingness to be treated, entire cure of the infectious stage, and avoidance of the means of infection of others. With these we may hope to lessen the number of cases. Isolation is manifestly impossible, and the disease is spread by the passing from one place to another of the women infected. Hence the only way to control the spread is by careful and systematic medical examination of the women. Some infected show no gonnococci, yet have clinical symptoms of gonorrhea, and vice versa. A microscopic examination is necessary in order to make a certain diagnosis; but this takes a great deal of time when many prostitutes are to be examined. He suggests the following methods: A microscopical examination is made of the secretion of every new case, and upon every appearance of new symptoms, and every woman submits to an examination of secretion once in two months. The examiner becomes accustomed to his patients, and any new symptoms are at once perceived, and lead to microscopical examination. Hence it is not necessary to examine every case each day, and the time required is greatly diminished. His results show that from 1898 to 1900, there were 12 to 28 per cent. of the prostitutes had gonorrhea; in 1901, 32 to 26 per cent.; in 1902, 24 to 25 per cent.; from 1903 to 1904, 16 to 19 per cent., thus demonstrating a marked decrease under his methods.

Eye-strain and its Consequences.

Ramsay (Glasgow Medical Jour.) draws attention to the well known symptoms of uncorrected errors of refraction and muscular abnormalities. The writer mentions with approval Gould's work entitled "Biographic Clinics," and shows how great a debt all ophthalmic surgeons, and the world in general, owe to Dr. Gould for calling attention so forcibly to the importance of this subject. He objects to the suggestion made by the London School Board that cylindrical lenses are hardly necessary for the astigmatic children under their care. There can be little doubt that this view is essentially unsound; the uncorrected astigmatic eye tends to become the compound myopic eye, and this latter is never a healthy organ.

The specialist must not forget, however, that the general health has much to do with eye-strain. If the health is good and the system sound and strong, many errors of refraction occasion no trouble; but if the child runs down the eyes give way, and glasses are necessary to enable the use of the eyes. So long as children attend school insufficiently clad and fed, so long will small errors of refraction give rise to eye strain.

Parasites of Varicella, Smallpox and Vaccinia.

W. E. de Korte (The London Practitioner) finds it possible to demonstrate in the lymph collected from the pocks of these diseases spherical unicellular organisms

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about one twenty-five-hundredth of an inch in diameter, with a large centrally placed nucleus. These are found in hanging-drop preparations, but disappear when placed in culture media or when fixation is attempted. They may be fixed with alcohol and ether and then stained. That they are not leucocytes is further shown by the fact that they can be kept in sterile capillary tubes for six months without disintegration. The lymph from the vesicles of smallpox must be obtained by the fifth day of the eruption; human vaccine lymph on the eighth or ninth day, as they disappear on the tenth; while the parasite of chicken-pox is found during the first three days of the eruption and shares with that of human vaccine lymph the property of extreme motility.

Contribution to Congenital Syphilis.

Jesionek (Muench. med. Woch.) opposes the view taken by Matzenauer on this subject. Matzenauer says that syphilis of the newborn is always of maternal origin, i. e., if a child is born with syphilis, it is so because the mother is syphilitic. Thus, he denies the pure paternal infection through the spermatozoon, the child inheriting syphilis from the father without the mother becoming syphilitic, as expressed in Colle's law. Those cases of syphilis occurring during pregnancy are held to be cases of ordinary infection where the primary sclerosis has been overlooked. Jesionek reports a case of a servant girl, eighteen years old, who came under observation on account of gonorrhœa. No signs of syphilis, primary or secondary, were to be found, although repeated examinations were made by different physicians. The girl was pregnant, and in the fifth month of pregnancy and after four months of close observation, secondary signs of syphilis, macular and maculo-papular eruptions appeared. The child was born in the eighth month, dead, and showing distinct signs of syphilis.

The writer holds that this case, which was carefully observed, proves a paternal origin or infection of the fœtus; and that the theory of *choc en retour* is vindicated.

Sterilization of the Hands.

Collins (Brit. Med. Journal) arrives a the following conclusions:

1. The nail brush used should be boiled before use, or better still, kept always in an antiseptic solution.

2. Vigorous scrubbing is required for at least five minutes.

3. The water should be as hot as can be comfortably borne.

4. Chemical antiseptics of efficient strength should be used for cleansing the skin, and it is preferable that they should be used in the primary washing as well as in the final soaking.

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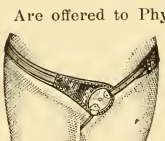

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Origin of Acute Miliary Tuberculosis.

Silbergleit (Virchow's Archiv.) made investigations in order to decide how a local tuberculous process generally becomes disseminated. In 95% of the cases tubercles of the vessels or of the thoracic duct were found which had permitted the bacilli to gain the blood-stream. It is well known that Rippert strongly opposes this theory since he has frequently hunted in vain for tubercles large enough in the walls of the vessels in his cases, to account for the large number of metastatic deposits in the body. Furthermore, he states that the focus is not always ulcerated and that the different size of the tubercles especially in the lung argues for a different age. It seems more probable to him that an active proliferation occurs into the capillaries and that the blood is constantly contaminated from this source. He states, however, that the capillary focus is generally inadequate and that it is often present even where there is no miliary tuberculosis. The unequal size of the tubercles is due to the fact that the same number of bacilli is not transported to all parts of the body and that different tissues do not permit an equal development.

Rectal Anesthesia.

Krongeline (British Medical Journal) advises rectal anesthesia by ether vapor in cases of operation on the head and neck especially. The ether flask is placed in water at 40 deg. C., and connected with a rectal tube supplied with a receiver to collect the condensed liquid ether. In two or three minutes the patient's breath smells of ether, and soon afterward anesthesia is induced. If this is not sufficiently deep a few whiffs of chloroform may be inhaled. The advantages of rectal anesthesia are rapidity and freedom from the inconveniences of inhalation. In his cases the duration of anesthesia varied from thirteen minutes to one hour fifty-four minutes, and the amout of ether used from 20 to 120 cubic centimeters.

Exophthalmos of the Right Eye.

Kennedy in the Glasgow Medical Journal says, as usual, it follows an injury. He reports a case eight months after the accident the right eye was proptosed to the extent of about ½ inch; it was pulsatile, protruding with the systole and retracting with the diastole. The conjunctival vessels were engorged. Pressure of the fingers could reduce the eye into its normal place. A loud whizzing systolic bruit could be heard over the side of the face, and was audible to the patient himself. The murmur ceased on compression of the carotid.

The common carotid was tied, and the symptoms disappeared, although the vision never returned to normal, but remained reduced to perception of light.

Intravenous Injection of Oxygen.

Neudorfer (Wiener klin. Wochenschrift) reports a case of revival of a moribund patient by the intravenous injection of oxygen. The case was one of cystic goitre, complicated by bronchitis and catarrhal pneumonia, and asphyxia persisted even after tracheotomy. During the recurrent attacks of cyanosis and dyspnea, oxygen was injected into a vein by Gaertner's method. Each time the patient rallied, recovered consciousness, and experienced relief. The symptoms of suffocation disappeared after the second injection, but the patient eventually died from pulmonary edema and cardiac weakness. He remarks on the absolute harmlessnes of the method which was demonstrated by this experience.

Influence of the X-Ray on the Ovary.

Halberstaeder (Berliner klinische Wochenscrift) exposed the ovary on one side in young rabbits to the x-rays, and found that in every case the growth of the exposed ovary was checked. When the rabbits were killed later it was found that the exposed ovary was from one-half to one-third smaller than that on the other side. He finds that the ovaries are much more sensitive than the skin to the x-rays, and urges that this be borne in mind in x ray exposures of the abdomen. Female workers in x-ray laboratories should be protected from injury from this source. The testicles are less sensitive than the ovaries.

Analgesia in Obstetrics.

Steinbuechel (Brit. Gyn. Jour.) recommends the use of morphine and scopolamine hypodermically in doses of 0.01 gramme of the former and from 0.0003 to 0.0004 gramme of the latter—that is to say, 0.15 of a grain of morphine and from 0.0045 to .0006 of a grain of scopolamine. By this treatment he declares that the pain and suffering of the woman is much lessened, though her consciousness is not affected nor uterine activity diminished.

Labor Obstructed by a Pre-Sarcal Tumor

Keitler (Centralbl. f. Gynak, Leipzig, 1903, No. 46) reports the following cases: —P., æt. 27, 4-para. The third pregnancy was terminated by version, delivery of pelvic obstruction, by a tumor extending from the sacrum into the pelvis. The fourth pregnancy was terminated by Cæsarean section. The child lived, but the mother died on the following day. The pelvic tumor measured 14 cms., was spherical in shape, with an irregular surface. The tumor was probably a sarcoma undergoing myxomatous degeneration. There were numerous secondary growths in the liver, the largest measuring 2.6 cms. in diameter.—*Edinburgh Medical Journal.*

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Movable Kidney.

Moullin, in the London Lancet, says that the condition known as movable kidney is far more common than is generally supposed. In fact, to a certain extent all kidneys may be called movable, an up-and-down movement of one or two inches being qnite compatible with perfect health. A movable kidney becomes pathological only when the kidney does not spontaneously return to its original position when the diaphragm relaxes, but must be replaced either manually or by the patient assuming the recumbent posture. Such kidneys may simulate the most diverse lesions. He reports several cases in which movable kidneys produced symptoms closely resembling those characteristic of appendicitis, gastric ulcer, obstruction of the gall bladder and of the common duct. There is, however, one test which always enables one to ascertain whether the symptoms are produced by a movable kidney. When the patient is made to remain in the recumbent position, the symptoms are quickly relieved and usually disappear altogether if they are due to movable kidney. If due to organic disease, however, this change of position produces little or no effect.

The Technique of Tape-worm Therapy.

Boas (Therap. Monatsh.) gives an account of Lobotta's experience that felix mas is by far the most reliable therapeutic agent in removing taenia, provided it is given in sufficient doses and in an efficient manner. The method which this gentleman has employed for some years is based upon the assumption that the effect of the drug upon the parasite becomes greater the longer it remains in contrct with it and the less it is diluted. For this reason the writer urges that purgatives should be deferred for at least six hours after the administration of the remedy, and considers that purgatives given at the time or within two hours after the remedy simply shorten the exposure of the taenia to its toxic action, and is "more pleasant to the parasite than to the patient." Gaanitz warns against castor oil as a purgative for this purpose, because of the frequent toxic effects on the patient which follow its administration. The writer objects to calomel on account of its uncertain action, but dvises the use of Epsom salts or an aperient water containing Epsom salts as its active constituent. Likewise, the author deems a preparatory starvation and clearing up of the intestinal tract as unnecessary, unless, in regard to the latter point, actual constipation exists. In regard to the administration of the drug when it is not well borne by the stomach, he employs an emulsion of the extract in a solution of gum arabie; if, in spite of this precaution, nausea is still produced, he guards it with a hypodermic of morphine. The efficient dose for adults need not exceed five to eight grams.

The modus operandi is the following: The patient is allowed his usual diet on the day preceding the cure; it constipated, he is given a saline purgative, otherwise not. On the following morning he is given from five to eight g. of extract felieis mass on an empty stomach, after which he takes neither solid food nor liquids for six or seven hours, at the end of which time a full dose of a saline purgative is given. No food is allowed until after the expulsion of the parasite. The patient is then at liberty to eat according to his inclination.

The Anti-Bodies of Streptococcus and Pneumococcus Sera.

Neufeld and Rimpan (Deutsche Medical Woch.) demonstrate that there can be present in immune sera three substances, different in character and action. To the antitoxin and bacteriacidal action, they add a third function of specific character. It consists in a phagocytosis occurring by the interaction of immune serum and of leucocytes under certain conditions, that experimentally can be studied. They immunized rabbits against virulent streptococcus, and found that in the immune serum thus produced streptococci were taken up by the leucocytes derived from normal rabbits. Similar experiments have been made before by Denys and Leclef, and Metchnikoff had explained the action of such a serum as a stimulation of the leucocytes. They don't believe in this explanation, and find that

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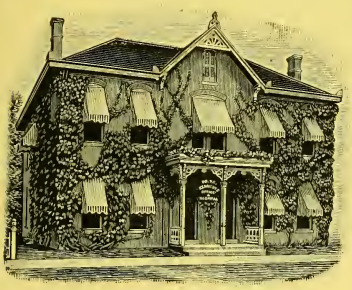

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the bacteria are made less resistant by taking up from the immune serum a substance relatively thermostabile, and called by Pfeiffer immune substance. Only after this union, the bacteria become accessible to the phagocytic function of the leucocytes. The results were obtained for pneumococci; the conditions were the same in the animal body and in the test tube.

Three Cases of Cancer Complicating Advanced Pregnancy.

Spencer (Jour. of Obst. Brit. Emp.) gives the histories of the following three cases which are of unusual interest.

Case 1.—Patient was delivered March 25, 1893. with forceps, of a fully developed child. Just two weeks later a malignant growth was detected on the anterior lip of the cervix, which, by microscopical examination was found to be a squamous epithelioma. April 8, 1893, the cervix was removed by high amputation. Uninterrupted recovery. Latter part of 1894 she again became pregnant, therefore Porro's operation was performed at the end of pregnancy. Both mother and child recovered. In July, 1904, the patient is still well and free of recurrence, eleven and a quarter years after high amputation of the cancerous cervix.

Case 2.—On January 9, 1896, premature labor was produced in seventh month of pregnancy. On January 28th the carcinomatous cervix was removed by high amputation (squamous epithelioma). Uninterrupted recovery. On August 9, 1904, eight and one half years after the operation, the patient was found well without recurrence.

Case 3.—On June 30, 1896, four months after a normal confinement, the cervix was removed by high amputation for a squamous epithelioma. Prompt recovery. August 6, 1904, more than eight years after the operation, the patient is perfectly well.

He ascribes the remarkable success in his three cases to the use of the thermocautery and to the fact that the operations were performed during the puerperal state when the tissues were undergoing involution. He believes the total extirpation of the uterus should be limited to cases of sepsis or when the peritoneum was extensively opened during high amputation or uncontrollable hemorrhage is met with. If possible the operation should be postponed until two weeks after the expulsion of the fetus.

The Cure and Latency of Diabetes Mellitus.

Leo (Berliner Klinische Wochenschrift) mentions the difference in opinion as to the cure of diabetes. Seegen, v. Mering and Rump, for instance, maintain that diabetes is never cured. Cantani, v. Noorden, Ebstein and Ewald are among those who maintain that the cure is a possibility.

He says that the difference of opinion is due to the fact that the lines are not clearly drawn between glycosuria and true diabetes, and that all are not agreed as to what the cure of diabetes constitutes. Inasmuch as the soluble carbohydrates may cause glycosuria in a non-diabetic person, they must be excluded as a factor in testing cases, and starches only should be used as the criterion. While the non-diabetic person can take unlimited amounts of starch without excreting sugar in the urine, the diabetic is characterized by the fact that his power of assimilation of starches has a limit. If this boundary is overstepped, dextrose appears in the urine.

He says that we may speak of a cure of diabetes only when an individual who excreted sugar in his urine, while on a diet free from soluble carbohydrates, ceases to do so permanently in spite of a diet rich in starches.

He mentions a case in which the sugar disappeared from the urine twice for a long period of time, and the patient manifested unlimited power of assimilating starches. Each time, however, the diabetes returned. Such a case shows the importance of being always guarded with reference to a prognosis in the so-called cures of diabetes. He believes that many of these cases are considered cured during a period in which they are simply latent.

Pyelonephritis Cured by Massage.

Bastin-Williams (La Policlinique) describes manipulative methods as applied to treatment of a damaged kidney. The patient shortly after a fall complained of pain in her side. Urination was frequent and painful; there was slight fever and general failure of health. The urine contained an abundant quantity of pus, and the right kidney was prolapsed and considerably enlarged. Segregation of the urine showed that the pus all came from the right kidney. Under pressure and manipulations about 50 grammes of urine could be expressed from the right kidney. Under daily massage the general condition of the patient improved, the appetite returned, and the pus disappeared from the urine. At the time the report was made the patient was in robust health, but the right kidney was still enlarged. There was still some retention of urine in the affected kidney, as under manipulation about 30 grammes of clear aseptic urine would be discharged.

Observations on the Treatment of Diphtheritic Paralysis.

Rolleston, in the London Practitioner, says that, on account of the incomplete development and short duration, none is required in the majority of cases. Where regurgitation does occur, it is necessary to

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thicken all fluids and see that the food is taken slowly. When patients begin to cough over solid food it is well to adopt nasal or œsophageal feeding, and discontinue all food by the mouth for a time. This usually gives satisfactory results, except in cases where there is much cardiac dilatation or the diaphragm shows signs of commencing paresis. In such cases it is better to feed the patient entirely *per rectum*. Pharyngeal paralysis does not usually persist for long. Commonly by the tenth day from the onset of the pharyngeal palsy the voice becomes clearer, and there is a diminution of gurgling in the pharynx, indicating that the palatal and pharyngeal muscles are regaining their power. The administration of soft solids may be commenced, and if these can be swallowed the patient is usually ready to take thickened fluids by the following day, and within a week he can take ordinary solid food again. It is usually advisable when pharyngeal paralysis exists to raise the lower end of the bed. This allows saliva and mucus to draw away from the nose and mouth, and prevents its accumulation in the pharynx, larynx, and bronchi.

In some cases no drug treatment is required, but if the accumulation of mucus becomes excessive, with marked cyanosis, benefit is usually derived from full doses of belladonna or atropine.

Cardiac Paralysis.—Early involvement of the heart, such as is associated with the more severe forms of faucial diphtheria, is almost always fatal whatever treatment is adopted. In all such cases the treatment should be prophylactic. A recumbent position must be strictly enforced. The food should be readily assimilable, and given in small amounts at a time. Any drugs likely to promote vomiting should be avoided, and the bowels should be opened by enemata. As soon as vomiting occurs associated with cardiac involvement, feeding by the mouth should be abandoned, or restricted to small quantities of peptonized milk (1 ounce or less hourly). If the vomiting still continues this should be stopped, and rectal feeding resorted to. If the retching and vomiting persist, with restlessness, and an algid condition supervenes, the case is hopeless.

The only drug of value in this condition is adrenalin chloride. It should be given as a prophylactic measure in severe cases before this condition has supervened, and in increasing doses. Usually it is well to start with a 5-minim dose of the 1 in 1,000 solution every four hours, and gradually increase the dose until 10 minims are being taken every two hours. It may be given with each nutrient enema in 15-minim doses. It is advisable to diminish the dose gradually before discontinuing the drug altogether. It has a marked effect upon the pulse, causing it to become fuller, slower and stronger; the colour improves; restlessness becomes less marked, and in favourable cases disappears. The administration of brandy is without value in this condition, and may, indeed, promote vomiting. The hypodermic administration of strychnine is also quite unavailing. Syncopal attacks in convalescence, on the contrary, can be successfully treated by the administration of brandy and injection of strychnine. The patient should be placed in the recumbent position, the feet raised, and hot bottles applied to the extremities.

Weakness of the lower limbs with wasting is noticeable after the patient first gets up for a period which varies between a week and a month. It may be present in all degrees, from slight unsteadiness of gait up to complete paraplegia. For this condition nothing is better than daily massage of the limbs for about twenty minutes night and morning, while the patient should be encouraged to persevere in his efforts to use his muscles to an extent short of what will cause fatigue.

An ample supply of good nourishing food is required, as the appetite in convalescence from pharyngeal paralysis is very striking. Drugs such as preparations of iron, arsenic, and strychnine are of secondary importance.

The Nature of Cell Inclusions in Cancer.

Greenough (Journal of Medical Research, January) gives the following conclusions:

1. The double cell inclusions of cancer are practically constant in cancer of glandular origin.

2. They are not found in epithelioma and are almost invariably present in sarcoma.

3. Their size, structure and staining reactions are such as to justify the assumption that they are vacuoles in the cell protoplasm, containing a material which is coagulated and shrunken by the use of tissue fixatives.

4. The occurrence of vacuoles of this nature is chiefly a phenomenon of cell secretion.

5. Similar vacuoles may be produced, however, in certain cases of phagocytosis, and by the degeneration of the nucleus.

6. Secretion vacuoles of the form of typical cancer cell inclusions are found in certain non-cancerous diseases of the mammary gland.

7. In such cases the secretion vacuole is between the nucleus and the lumen of the gland,

8. The inclusions in adeno-carcinoma

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occupy a similar position between the nucleus and the lumen of the gland.

9. In more advanced carcinoma the gland lumen is lost. The secretion vacuole cannot escape and remains within the cancer cell to undergo further increase and ultimate degeneration.

10. Cell secretion is a phenomenon which is lost in the progressive anaplasia of cancer cells.

11. Cell inclusions are more frequent in slow growing cancer and are less numerous in advanced cancer with rapid cell division.

12. No reason exists for the interpretation of these appearances as of parasitic origin.

Treatment of Tubercular Glands by X-Rays.

Beckett, according to the Australasian Medical Gazette, advocates this method of treatment. The writer says that excision can not be regarded as a cure; it is merely the best expedient to be adopted in face of a confessed inability to cure. There are two reasons why the operation has to be very often repeated: first, the impossibility of drawing any certain line of demarcation between the infected and non-infected glands; and secondly, the surgeon's knife does not attack the cause, but the effect of the disease. The infected glands are not the primary cause, but the result of infection that has been incurred elsewhere, so that if even the whole of the infected glands is removed it is quite possible for others to follow on the same course. The same thing can be seen after the removal of the tonsils by excision, as we know it is no uncommon experience to find after the tonsils have been removed that in a few months the enlargement is as great as ever. The question of disfiguring scars is no trivial one to any young woman, and many of these patients are such. On the other hand, by the x-ray treatment, if carefully done, there is no disfigurement. Above all, the beautiful way in which, in a suitable case, these glands disappear forces the writer to believe he is not claiming too much in describing it as a process of actual cure, which can only be explained on the assumption that the rays act not only on the glands, but also on the primary source of the disease. The author finds that the patient gains weight and improves in health. The only drawback is that some time and trouble is required; but the results are so much better, in his opinion, than by operation that he believes most persons would prefer it, and when the facts are better known the operations for excision of the glands will pass into the limbo of the discarded and needles operations.

In regard to the method of treatment, as so much of this work is largely a question of time and patience, nothing can be accomplished in a few days or a few exposures. He uses a powerful coil and a current of large amperage, giving five-minute exposures two or three times a week. As might be expected, it is advisable to use tubes in the highest practical state of vacuum to obtain as deep penetration as possible, and also because these tubes give other advantages specially suitable to these cases. In the first place such exposures are rather severe, and with ordinary low, or comparatively low, vacuum tubes the difficulty is with the dermatitis, which arises and compels the treatment to be suspended for a while. He says that it is possible to give longer exposure and can use stronger currents (that is, up to 8 to 10 amperes) before the dermatitis becomes troublesome by using strong tubes. In some cases marked pigmentation takes place, which may last for a time after the treatment is suspended, but this is not permanent, and in time, as the skin is renewed, it entirely disappears. Some modification is required in individual cases as experience suggests. In cases where suppuration has already commenced the writer's practice is to open and drain through a small opening, keeping open as long as necessary. These wounds heal readily and do not show any tendency to suppurate again.

Treatment varies in length of time according to the severity of the case; roughly speaking, from one to three months is the rule. The writer sometimes uses the high frequency currents in conjunction, but regards the x-rays as the main factor in the cure, and that is another of the reasons why he prefers a very highly exhausted tube, as a certain amount of high-frequency currents are being given off all the time; and if a low vacuum tube is used no good effect seems to result. The enlarged glands disappear very slowly, and even at the end of the treatment can still be detected, but the improvement continues afterward until they entirely disappear. One marked feature is the decided improvement in the bodily health of the patient that takes place. They nearly always gain weight. Enlarged tonsils, which are also often present, also subside, from which he believes this treatment would be as beneficial for such cases, and might well be tried before resorting to excision. As regards the prospects of recurrence, he expected to find that would take place, but so far he has not seen it happen, and merely regards recurrence as an indication of insufficiently prolonged treatment.

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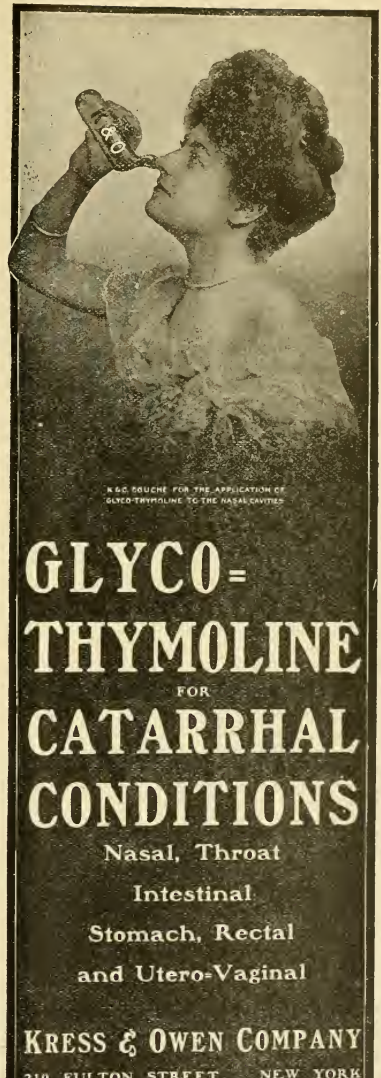

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Miscellaneous.

Medical Society of the State of North Carolina, 52nd Annual Meeting, Greensboro, N. C., May 23, 24 and 25, 1905.

* PRELIMINARY PROGRAMME.

Society called to order in Guilford Court House at 10 a. m., May 23, by Dr. Chas. Roberson, Chairman Committee of Arrangements.

Invocation: Rev. H. W. Battle.

Address of Welcome from Chamber of Commerce: Dr. Chas. D. McIver.

Address of Welcome from City of Greensboro, Hon. A. L. Brooks.

Response on Behalf of City, Dr. L. B. McBrayer, Asheville.

The Annual Address of the President, Dr. David T. Tayloe, Washington.

The Annual Oration," The Influence of Psychic Phenomena Upon the History of Medicine," Dr. Ben K. Hays, Oxford.

The Annual Essay: "The Physician and the Public," Dr. Jno. Hill Tucker, Henderson.

The Annual Debate: "A Plea for a More Liberal Diet in Typhoid Fever." Leader of Debate, Dr. E. T. Dickenson, Wilson.

"Pneumonia," Dr. H. B. Weaver, Asheville.

"Pneumonia from a Personal Viewpoint," Dr. J. B. Wright, Granite Falls.

"Some Practical Observations on Pneumonia and Its Complications," Dr. M. H. McBryde, Milton.

"Pneumonia, Practical Suggestions as to Therapeutics," Dr. W. H. Anderson, Wilson.

"The Bearing of the Medical Fraternity to Chemistry: What it Is, What it Should Be?" Dr. W. J. Martin, Davidson.

"Importance of Exact Diagnosis in Diseases of the Stomach," Dr. Chas. W. Mosely, N. Wilkesboro.

"On the Duodenal Ulcer: Its Etiology, Symptomatology, Prognosis and Treatment," Dr. Fred K. Cooke, Wake Forest.

"Gastric Ulcer," Dr. E. A. Lockett, Winston.

"Enteritis, Follicularis, Symptoms and Therapy," Dr. Jno. T. Burrus, High Point.

"Glaucoma, Diagnosis and Treatment," Dr. C. W. Banner, Greensboro.

"Defective Hearing in Children," Dr. R. V. Brawley, Salisbury.

"Life Insurance Examinations: The Duties and Responsibilities of all Concerned," Dr. O. L. Denning, Dunn.

"Edible and Poisonous Fungi in North Carolina," Dr. J. W. Peacock, Thomasville.

"Etiology of Chronic Hepatitis," Dr. S. M. Crowell, Charlotte.

"Quacks, Charlatans and Imposters," Dr. C. E. Reitzel, Youngsville.

"Physical Therapeutics," Dr. J. A. Walton, Danville.

"The Internal Secretions," Dr. M. Eugene Street, Glendon.

"The Anatomical Basis of Heredity," Dr. R. H. Whitehead, Chapel Hill.

"A Case, Heart Congenitally on Right Side of Body," Dr. Lynn McIver, Sanford.

"Diagnosis and Treatment of Tuberculosis of Kidney," Dr. R. Winslow, Baltimore.

"The Future of Surgery," Dr. H. S. Munroe, Davidson.

"A Plea for Prompt and Efficient Treatment in Gunshot and Other Wounds of the Abdomen, with Clinical Reports," Dr. W. O. Spencer, Winston.

"Rectal Fistulæ," Dr. A. J. Crowell, Charlotte.

"Gall-stones, with Reports of Cases," Dr. J. W. Long, Greensboro.

"Puerperal Eclampsia," Dr. F. R. Harris, Henderson.

"Symphisiotomy, with Report of Case," Dr. J. A. Williams, Reidsville.

"One Hundred Consecutive Coeliotomis," Dr. J. F. Highsmith, Fayetteville.

"Report of Autopsy 18 Months After Talma's Operation for Hepatic Cirrhosis," Dr. L. B. McBrayer, Asheville.

"Report of Case, Round-cell Sarcoma of Tongue," Dr. St. Clair Spruill, Baltimore.

"Clinical Report of Interesting Surgical Cases," Dr. C. M. Strong, Charlotte.

"Surgery of Stomach and Duodenum," Dr. A. C. Harrison, Enfield.

"Surgical Treatment of Dyspepsia," Dr. Stuart McGuire, Richmond.

"Surgical Treatment of Ectopic Gestation," Dr. H. S. Lott, Winston.

"Tubal Pregnancy," Dr. W. P. Whittington, Asheville.

"Burns as Seen by the General Practitioner and Their Treatment," Dr. J. P. Munroe, Monroe.

"Operative Treatment of Aneurism," Dr. H. M. Taylor, Richmond.

"Some Peculiarities of Railway Surgery," Dr. D. A. Stanton, High Point.

"Personal Views on the Management of Typhoid Fever," Dr. E. C. Register, Charlotte.

"Immunity," Dr. W. S. Rankin, Wake Forest.

"The Chemico-Physiological Basis for Infant Feeding," Dr. Sam E. Woody, Louisville.

"The Vital Importance of Physiologic Elimination by the Kidneys," Dr. W. C. Steele, Mount Olive.

"Metabolism," Dr. I. W. Faison, Charlotte.

"The Responsibilities of Railway Surgery," Dr. C. A. Julian, Thomasville.

"Appendicitis," Dr. LeGrand Guery, Columbia.

"Intestinal Antiseptis in Typhoid Fever'" Dr. F. M. Winchester, Charlotte.

"The Surgical Aspects of Tri-Facial Neuralgia," Dr. B. S. Moore, Charlotte.

"Differentiation of the Tubercle Bacillus from the Smegma Bacillus by Staining and its Clinical Importance," Dr. Jno Roy Williams, Greensboro.

GENERAL INFORMATION.

County Medical Societies which have not already sent in their reports for 1905 will please do so at once.

The State Board of Medical Examiners meets in Greensboro, May 17.

The State Medical Society meets in Greensboro, May 23.

The General Sessions of the Society will be held in the Court Room.

The sittings of the House of Delegrtes will be in Benbow Hall.

Headquarters will be at the Benbow Hotel. The hotel accommodations of Greensboro are of superior quality and ample for all. Four first-class hotels, the New Benbow, The Guilford, the McAdoo, The Clegg. Each will be open for guests and a reduction is assured gentlemen attending.

The railroads give reduced fares, one and one-third rate. Pay full fare going, being careful to take a receipt from the agent selling the ticket, which receipt countersigned by the Secretary, entitles to return fare of one-third.

The Guilford County Medical Society is enthusiastic over the prospects of having a very successful meeting.

The attendance gives promise of being large.

*The regular programme will be issued about May 20 giving the arrangement of papers with titles of additional papers.

Authors will facilitate the work of the Secretary and expedite the early appearance of the Volume of Transactions by having their papers in duplicate copy, preferably type-written.

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possesses the healing qualities of the Ointment, and is invaluable for cleansing affected parts.

I find by testing it that your Resinol Ointment is a most excellent preparation for all skin diseases; and for pruritus ani et vulvæ, I have never found anything better.—I. B. HARGETT, M. D., Cleveland, O.

I used your Resinol Ointment a short time ago in a most intractable case of pruritus ani which defied every other remedy used. It was relieved in a very few applications. I regard your preparation as a triumph over this detestable symptom.—J. G. KELLY, M. D, Hornellsville, New York.

I tried your Resinol Ointment on myself. I had suffered from pruritus ani, or marginal eczema, for 25 years, and had tried many remedies without any relief, until Resinol proved soothing and stopped the itching instantly.—J. T. HICKMAN, M. D., Mt. Jackson, Virginia.

Resinol Ointment is the first local application I have found, that has given lasting and gratifying results in the treatment of pruritus vulvæ.—DR. GRACE WINTERSTEEN, Harrisburg Pennsylvania.

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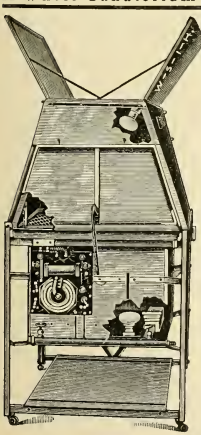

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The scientific features of the meeting give promise of a high grade. Chairmen of Sections who have not already done so will kindly send the Secretary immediately any additional titles for their section. Gentlemen of the Society wishing to present papers, clinical reports, or specimens, will kindly advise the Secretary without delay that a place may be assigned them on the final programme.

Gentlemen representing their County Medical Societies in the House of Delegates will please bring their evidence of authority.

Every member of the County Medical Societies of the Medical Society of the State of North Carolina is given a most cordial invitation to attend the session.

EXTRACTS FROM BY-LAWS.

Chapter I.—Membership.

SEC. 1. All members of the component county societies shall be privileged to attend all meetings and take part in all of the proceedings of the annual sessions, and shall be eligible to any office within the gift of the Society.

SEC. 2. The name of a physician upon the properly certified roster of members or list of delegates, of a chartered county society which has paid its annual assessment, shall be prima facie evidence of his right to register at the annual session in the respective bodies of this Society.

SEC. 4. Each member in attendance at the annual session shall enter his name on the registration book, indicating the component society of which he is a member. When his right to membership has been verified by reference to the roster of his Society, he shall receive a badge, which shall be the evidence of his right to all the privileges of membership at that session. No member or delegate shall take part in any of the proceedings of an annual session until he has complied with the provisions of this section.

OFFICERS AND COMMITTEES.

President—Dr. David T. Tayloe, Washington.

First Vice-President—Dr. C. A. Julian, Thomasville.

Second Vice-President—Dr. John T. Burrus, High Point.

Third Vice-President—Dr. I. W. Faison, Charlotte.

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Orator—Dr. Ben K. Hays, Oxford.

Essayist—Dr. John Hill Tucker, Henderson.

Leader of Debate—Dr. E. T. Dickenson, Wilson.

Members House of Delegates American Medical Association—Drs. J. Howell Way, Waynesville; Albert Anderson, Wilson.

Committee on Public Policy and Legislation—Drs. R. H. Lewis, Raleigh; George G. Thomas, Wilmington; George W. Long, Graham; and ex-officio, Drs. D. T. Tayloe, Washington; J. Howell Way, Waynesville.

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Committee on Finance—Drs. James A. Burroughs, Asheville; Thomas E. Anderson, Statesville; Frank Duffy, New Bern.

Committee on Obituaries—Drs. C. M. Poole, Craven; H. H. Harris, Wake Forest; K. P. Battle, Jr., Raleigh.

Committee on Scientific Work—Drs. R. H. Whitehead, Chapel Hill; D. J. Hill, Lexington; J. Howell Way; Waynesville.

Local Member Committee Arrangements for Session 1905—Dr. Charles Roberson, Greensboro.

CHAIRMEN OF SECTIONS.

Anatomy and Surgery—Dr. J. P. Munroe, Munroe.

Materia Medica and Therapeutics—Dr. R. A. Whittaker, Kinston.

Practice of Medicine—Dr. W. H. Cobb, Jr., Goldsboro.

Physiology and Chemistry—Dr. Lynn McIver, Sanford.

Obstetrics—Dr. Thomas Stringfield, Waynesville.

Gynecology—Dr. W. P. Whittington, Asheville.

Medical Jurisprudence and State Medicine—Dr. E. M. Brown, Washington.

Pathology and Microscopy—Dr. William DeB. MacNair, Raleigh.

Railway Surgery—Dr. D. A. Stanton, High Point.

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Delegates to South Carolina Medical Society—A. J. Crowell, Charlotte; W. J. McAnally, Madison; C. L. Pridgeon, Kinston.

Delegates to Mississippi Valley Medical Association—Drs. H. B. Weaver, Asheville; M. H. Fletcher, Asheville; D. A. Stanton, High Point; James A. Burroughs, Asheville.

The Board of Medical Examiners of the State of North Carolina, 1902-'8—C. O'H. Laughinghouse, M.D., President, Greenville, Obstetrics and Gynecology; M. H. Fletcher, M.D., Asheville, Physiology and Hygiene; Frank H. Russell, M.D., Wilmington, Surgery; James M. Parrott, M.D., Kinston, Anatomy and Histology; A. A. Kent, M.D., Lenoir, Practice of Medicine; J. T. J. Battle, M.D., Greensboro, Materia Medica and Therapeutics; George W. Pressly, M.D., Secretary, Charlotte, Chemistry and Pharmacy.

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LEMON CITY, FLA., April 30, 1905.

Editor Charlotte Medical Journal.

Section 3, Chapter 11, of Constitution and By-Laws for County Societies (Prepared by the Committee on Organization of the American Medical Association) reads thus: "Agreements and schedules of fees shall not be made by this Society." etc.

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In your valuable journal within the past six years are printed many times, schedules of fees of various societies. Therefore, will you please answer the following in your journal. Are "fees and agreement schedules" generally in practice now, and are such county societies violating the laws of the American Medical Association? If societies generally adopt such schedules, are they financially rewarded?

Yours truly,

J. G. DuPuis.

Treatment of Advanced Cardiac Dilatation.

R. A. Flemming has had very good results in the treatment of cardiac dilatation by massage, passive movements, and modified resisted exercises. He believes the method to be useful as an adjunct to rest and cardiac tonics in many cases of cardiac dilatation, other than cases of acute endocarditis. It is in extreme degrees of dilatation in which its cautious use has yielded striking results. In none of the writer's cases was the entire series of exercises as prescribed by Schott carried out. They were limited to such movements of the arms and legs as could be carried out with the patient in bed, and no particular movements were ordered. Fatigue was never permitted. When the resisted exercises were completed, the patient was allowed to get up and a few minutes' slow walking replaced the exercises. The period of time given up to this treatment varied with each case. The writer reports ten cases in which he has used this treatment, with eight successes, or moderate successes. He thinks that the systematic trial of this method is warranted by his results. In over half of his successful cases, considerable periods, varying from six months to over two years, have elapsed without any breakdown of compensation. One case has relapsed, although it is not a complete failure.—The Scottish Medical and Surgical Journal.

Quinine Without Ebriety.

When two such well-known drugs as antikamnia and quinine are offered to the profession it hardly seems necessary to indicate the special classes of affections which call for their use. Antikamnia is unquestionably a perfect substitute for morphine for internal administration. It has complete control over pain, while it is free from the undesirable after-effects of the alkaloid of opium. In cases of malarial fever the combination of antikamnia and quinine should be given as a prophylactic and cure. For all malarial conditions, quinine is the best remedy we have. But, associated with this condition, there is always more or less pain, and antikamnia will remove these unpleasant symptoms and place the system in the best condition for the quinine to do its work. There are a number of ailments, not closely defined, which are due to the presence of malarial poison. All such conditions are greatly benefited by the use of "Antikamnia and Quinine Tablets," each tablet containing 2 1-2 gr. antikamnia and 2 1-2 gr. sulph. quinine. The antikamnia in these tablets not only relieves the pain, but prevents the ebriety or ringing sensation produced when quinine is administered alone. In headache (hemicrania), in the neuralgias occurring in anaemic patients who have malarial cachexia, and in a large number of affections more or less dependent upon this cachetic condition, the regular administration of these tablets is indicated.—Medical and Surgical News.

"So you have decided to get another physician."

"I have," answered Mrs. Cumrox; "the idea of his prescribing flaxseed poultices and mustard plasters for people as rich as we are?"—Ex.

Quite right. If he had been up-to-date, he would have used Antiphlogistine, whether his patients were rich or poor.

Some Facts About Sanmetto.

Sanmetto is a combination of the virtues of santal and saw palmetto in a pleasant menstrum of aromatics. In your practice you will find many diseases and diseased conditions in which Sanmetto will be indicated. I will name some of these diseases, and you have only to prescribe this remedy. Be careful as to diet and exercise as you would in prescribing any other remedy, and you will soon find it the best friend you ever had. Cystitis, both acute and chronic; enlarged prostate, with its usual irritation of neck of bladder and sensitive urethra; urethritis, both specific and non-specific; impotence, either due to excess or premature decay; and simple irritation of any part of the genito-urinary tract. It is also a great aid in treating many diseases of the pelvic organs in the female. Also seminal emissions and prostatorrhea, hematuria and enuresis are well treated with this remedy, except where surgical interference is necessary.

C. W. Canan, M. D.

Orkney Springs, Va.

That Acetozone is a valuable germicide is demonstrated by its effects upon typhoid, bacilli and cholera vibrios in river water. In their experimental work Freer and Novy (Contributions to Medical Research, p. 107.) made the following tests:

a. A cylindrical glass-wool filter was prepared, and on it was placed a layer of Acetozone crystals, about 3 cm. thick. A bouillon suspension of typhoid bacilli passed once through this filter yielded a sterile filtrate, while control tubes gave the usual abundant growth.

b. A liter of tap-water was sterilized by heat and, when cool, a suspension of cholera or typhoid germs was added, the experiment being repeated several times. Ten to twenty milligrams (1-6 to 1-3 grain) of Acetozone was added and, after thorough shaking, portions of the liquid were taken out and planted in bouillon and agar which was plated. In each instance the cholera germs were destroyed completely in five minutes, and the typhoid germs in fifteen minutes by the extremely small quantity of Acetozone used. It should be observed that the addition of 10 mg. of Acetozone to 1 liter of water represents a solution of 1 part to 100,000. Controls gave abundant growths, the plates yielding 600,000 to 800,000 colonies.

From the above experiments the authors draw the conclusion that pathogenic organisms are destroyed by extremely small amounts of Acetozone. They also suggest the practicability of this agent for the purification of contaminated waters, especially in connection with military operations. From other experiments it was found that even sewage can be rendered almost sterile by the addition of relatively small amounts of Acetozone.

Therapeutically Acetozone is being very widely used in the treatment of typhoid fever, intestinal diseases, notably summer diarrheas in children, in gonorrhea, suppurating wounds and infectious processes generally. It is prescribed in the saturated aqueous solution which is prepared by adding 15 grains of Acetozone to a quart of water, shaking thoroughly and setting aside for a couple of hours to hydrolize. Messrs. Parke, Davis & Co., who prepare Acetozone, are sending out printed matter to physicians containing reports of very gratifying results from the use of this interesting compound. Any physician who has not received a brochure can obtain one on request.

I have used and continue to use the preparation Seng with marked success, especially in cases of gaseous dyspepsia accompanied by irritable heart. I learn from my druggist that he has an increasing demand for it.

A. W. Fisher, M. D.

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A few points of its superiority over Single Retractors:

Stays Still,
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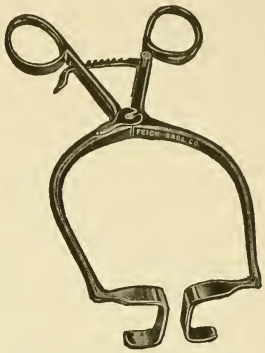

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FARWELL & RHINES, Watertown, N. Y., U. S. A.

Immediate Repair of the Cervix Uteri After Labor.

This is not an easy operation. Not only lacerations, but edema and contusions exist. Sutures placed in this hypertrophied tissue will, in twenty-four hours, hang like so many earrings in the cervix.—Dr. G. M. Boyd, in the Med.-Chirurgical Journal.

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Effervescent uric acid solvent and eliminator, stimulates liver, tones all intestinal glands, purifies alimentary tract and improves digestion, assimilation and metabolism. It is practically specific in rheumatism, gout and bilious attacks. Sal Hepatica has no equal for eliminating toxic products from intestinal tract or blood and correcting vicious or clogged functions. Write for free sample.

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For preparing an agreeable effervescing Saline Laxative containing LITHIUM and SODIUM PHOSPHATES, and possessing remarkable curative virtues in the treatment of the URIC ACID DIATHESIS and all affections of a rheumatic nature.
BRISTOL - MYERS CO.
NEW YORK.

The Medical Profession Upon Alcohol.

One of the most marked characters of man—civilized and uncivilized—is his craving for nerve stimulants, which, it need hardly be pointed out here, is simply another name for nerve poison. In vain moralists and physicians have for ages insisted that strong wine is a mocker, and that alcohol is answerable for a large proportion of the vice, misery and premature death that fall upon mankind. The curse of intemperance, as measured by the drink bills of various nations, has never reached a higher point than that registered in recent years. For all that, it is comforting to recall the fact that probably at no time have temperance organizations been more active and universal in their field of work, and at no period in the world's history has there been more individual abstention from alcohol. The opinion of the medical profession as to the ill-effects of the excessive consumption of alcohol upon populations has been again and again emphatically expressed. Their attitude of universal condemnation was carried a step further at a conference of medical men held last week in London under the presidency of Sir William Broadbent. Going to the root of the matter, the avowed object of the conveners of the meeting was to promote the teaching of hygiene and temperance in elementary schools. The significance of the association of those three great social forces, hygiene, temperance and education, savours strongly of the modern trend of thought. Here on the threshold of the twentieth century the schoolmaster is emphatically abroad, and the laws that govern sound and profitable living are to be taught in the schoolroom. Fifty years ago there was no national schoolroom, and fifty years ago alcohol was regarded as a necessity of life by the man in the street and as an indispensable drug of omnipotent value by the physician. Nowadays all that is changed. Alcohol is looked upon as a luxury for the healthy man and a stimulant of determinate value, useful in some forms of ill-health. On the other hand, it is recognized as the cause of a vast number of pathological disturbances, functional or organic, and as a potent factor in disease, premature senility, early death, insanity, and an innumerable array of more or less deadly maladies. As pointed out by Sir Thomas Barlow, the saving clause for the consumer of alcohol was the rate of its excretion from the body. Men who were capable of constant and equate elimination could consume moderate quantities of alcohol daily for many years without any appreciable bad results. Indeed, it is a well-recognized fact that some individuals may live to an advanced age in spite of free indulgence in alcohol during the whole of their lifetime. Exceptional cases cases of that kind, however, do not establish a contrary to the general assertion that alcohol is unnecessary for the maintenance of human life at a good wholesome standard as to energy, stability, and longevity. The knowledge of these things has come slowly to medical science, but now that the lesson has been learnt, it is reassuring to find that the united voice of the leaders of the profession has been raised with the sincerity not only of conviction but also of the absolute duty of proclaiming their faith in the highways and byways of our complex civilization.

Sanmetto In Neurasthenia from Overwork in Intellectual Lines.

I have found Sanmetto useful in several cases of neurasthenia from overwork in intellectual lines, without being associated with sexual irritations or excesses. In those cases where it seemed to do the most good there was depression of energy, consequent upon exhaustion of the vital forces. As a tonic in such cases it has proven satisfactory in a number of instances.

M. V. VanDenburg, M. D.
Mount Vernon, N. Y.

Dr. Wm. Osler.

As a devoted pupil of Dr. William Osler, of Baltimore, I deem it my duty to endeavor to correct some of the false impressions, which have arisen from reports of his recent valedictory address.

In the first place Dr. Osler was a student in an old university, and was doubtless familiar with the cramping effects of retaining men beyond their period of usefulness. Many of us have seen this in our student days. In the second place the address was delivered at a young university, most of whose workers are young men and whose older professors are young in their sympathies and are in close touch with their younger associates. One of the strongest proofs of the wisdom of the advice in the address was its enthusiastic reception by his older colleagues in the Johns Hopkins Faculty. Moreover, the address was delivered at an educational institution where naturally the students are young men and women, and for that reason, can best be reached by teachers young in their sympathies if not in years.

Again, Dr. Osler has devoted his life to a growing profession, which in spite of its boasted advances, is still in its infancy. I have heard him hold up the great unsolved problems to his students for their consideration.

It might be well to note in this connection that the policy of relieving men from the active duties of life at definite periods has been adopted by armies, navies, great transportation companies, etc.

In closing we should consider the incalculable blessing to the world, in general, and the medical profession in particular, if men like Dr. Osler would reserve the last ten years of the psalmist's "three score years and ten" for rounding out and polishing up the great mass of their scientific achievements and thus give it in a complete form to their professional children. Often has he spoken to small groups of us around his library table of how he longed for the time to come when he could lay aside the routine of class, clinic, etc., and shape up the work of his life and occasionally consult with younger members of the profession in regard to special cases.

The chloroform clause was, as will be seen from the text, simply a quotation from a novel.

The following is a copy of the text of the portion of the address which has evoked so much comment:

FIXED TERM FOR TEACHERS.

I am going to be very bold and touch on another question of some delicacy, but of infinite importance in university life, one that has not been settled in this country. I refer to a fixed period for the teacher, either of time of service or of age. Except in some proprietary schools, I do not know of any institutions in which there is a time limit of, say 20 years' service, as in some of the London hospitals, or in which a man is engaged for a term of years. Usually the appointment is aut vitam aut culpam, as the old phrase reads. It is a very serious matter in our young universities to have all of the professors growing old at the same time. In some places only an epidemic, a time limit, or an age limit, can save the situation.

MEN UNDER FORTY GREAT WORKERS.

I have two fixed ideas well known to my friends, harmless obsessions with which I sometimes bore them, but which have a direct bearing on this important problem. The first is the comparative uselessness of men above 40 years of age, This may seem shocking, and yet read aright the world's history bears out the statement. Take the sum of human achievement in action, in science, in art, in literature—subtract the work of the men above 40, and, while we should miss great treasures, even priceless treasures, we would practically be where we are to-day. It is difficult to name a great and far-reaching conquest of the mind which has not

The Charlotte Medical Journal.

VOL. XXVI. CHARLOTTE, N. C., JUNE, 1905. No. 6

North Carolina Medical Society—President's Address by Dr. D. T. Tayloe, Washington, N. C.

Ladies and Gentlemen and Fellow Members of the North Carolina Medical Society:

My first and pleasing duty is to acknowledge the honor which has been conferred upon me. To be selected president of this organization is one, I assure you, I heartily appreciate.

I realize the position which I now fill though sufficient to satisfy the loftiest ambition is surrounded by work and responsibility, but happily, however, in the performance of my new duties, I shall not be without the able co-operation of the members of this learned society.

Gentlemen, I tread in the foot-steps of illustrious men, men whose superiors it is my happiness to believe are seldom found in the medical profession. They have given to us the broad foundation upon which we now stand and which we are destined to become one of the strongest medical organizations in the South; and as time rolls on and the scheme of our new re-organization is perfected it is not too much to hope it will be for the betterment of the North Carolina Medical Society and every member therein.

I have selected as the subject of my remarks, "The Growing Need of Hospitals and Isolation Hospitals." It is known to those who are conversant with the hospital movement in this country, that the great majority of the present hospitals has been established during the past twenty years; that the growth of hospital facilities, during that time, has not kept pace with the general growth of the country is also known.

With a population rapidly approaching one hundred millions, the United States now has within its borders about six thousand institutions for the care of the sick and injured. This includes institutions for the insane and the sanitaria for the various special diseases. There are about three thousand hospitals proper, or, one for each thirty thousand inhabitants. These have a bed capacity of about three hundred and fifty thousand. Fully nine hundred, or nearly one-third of the hospitals are to be found in the one hundred largest cities. These have a bed capacity of about one hundred and five thousand. While the larger cities are, in most instances, well supplied with hospital facilities, there are a large number of small places with a population of from four thousand and upwards in which there are neither no hospitals or else the facilities are inadequate to the needs. While in most instances the cities without hospitals or with insufficient hospitals are within easy reaching distances of the well-equipped cities; and while some of the features of hospital care can be provided by graduate nurses, the growing appreciation of the hospital and the increased interest by the general public is calling for the further extension of the hospital movement.

The especial need is for small hospitals, hospitals which by giving the best general service more nearly approach the personal care and comforts of the home. In these there is not apt to be found the constant rush so often found in the large hospitals, and, as a result, the attention given to the individual patient is apt to be more complete and thorough. In expressing this opinion, I do not wish to be understood as in any way disparaging to the large hospitals. Both large and small have their distinct missions to be performed. The point is, there is need of hospitals in localities where the large hospital is an impossibility.

This is an age of progress; intelligence is being disseminated by the press and our people are being educated. In the scientific world great strides are taken. The rapid and wonderful growth of the industrial interest of the country is producing an equally rapid growth of accident cases, and these cases demand immediate attention. There is no time in which to transfer the patient to a hospital one hundred miles away. Immediate care must be at hand or lives are jeopardized. Another point to be brought out in this connection in this; the family of the average industrial worker is large; the home is not proportionately large, and as a result the conveniences for caring for the sick and injured are not adequate, and the hospital is very naturally looked to to supply this need. Another demand is to be found in the increased attention and care given their members by the churches and the various fraternal organizations who, in the main, prefer to give their assistance, in times of illness, or accident, through the medium of the hospital, realizing that through this medium the better care is obtained. The general welfare of the community also demands the hospital as a means by which the well may be protected from the sick by the prevention by isolation of the spread of contagious diseases. Many other reasons can be advanced in favor of the general extension of the hospital facili-

ties of the country. If our hospital had no reason for its existence beyond the relief of individual suffering and the cure of individual disease, it would still play an important part in the philanthropic activities of the community. It is this part of its work to which public attention has been and is largely directed; and it is this part of its work which, in the minds of most people, constitutes the chief reasons for its existence. This is a very narrow view to take. Great as is its service to the community in this particular, it is only a small part of the service which it really renders. It is an educational institution; an institution through which alone doctors and nurses can be trained, and through which alone medical science can be advanced, that our hospital, like others under equally enlightened management, has its chief claim upon the public. It is only by providing hospitals where the art of healing can be practically taught, that doctors and nurses can be prepared for their ministrations of mercy, whether to the rich who can afford to pay in money or to the poor whose only recompense is thankfulness. And it is only by providing such hospitals that medical and surgical science has made the marvelous advances which we have witnessed in our generation and which is hoped only pressages the progress still to come.

To the medical student the modern hospital affords an opportunity to see the theories of the text-books illustrated, to acquire a certain amount of skill and manual dexterity by experiments of a practical nature; to come into actual contact with the sick; to develop the powers of observation so necessary to success in medical practice.

To the nurse the hospital offers opportunities for the exercise of the best gifts. It is the entrance into a larger life; a school in which mind and hand and heart are disciplined and trained to supplement in the most efficient manner the work of the physician in the war with disease.

In our hospitals are assembled the sick and the maimed who are not merely healed themselves, but by whose healing that is learned which will heal others in generations to come. The physicians and nurses who are there, both to heal and to learn, the laboratories and surgical apparatus with which alone they are able to put their learning to its highest use and benefit. Such a conjunction in a hospital prevents more disease in the generation to come than it actually cures in the generation with which it is immediately and personally dealing. This educational function of hospitals should receive the same prominence which is given to its actual relief of human suffering, and this function which hospitals under private management are performing is not the least claim to their liberal support by our people. Those who have kept in close contact with hospital growth in the United States have not failed to note the rapid increase of hospitals established and owned by individual physicians. This movement has not by any means been confined to the physicians located in the large cities; in fact, it is. we think, most marked in the small cities or large towns. It can, without question, be accepted as direct evidence of the growing appreciation of hospitals by the medical fraternity. And that these hospitals in the main, receive a very cordial support may be accepted as evidence of the growth of public sentiment in favor of hospital treatment.

The establishment and successful operation of private hospitals in small towns are still further proof of the feasibility of such hospitals. The building and maintaining of private hospitals involves so much business anxiety and so much diversion of energy that few surgeons feel willing to assume the cares of such enterprises, and yet there can be but little doubt that the control of a hospital is one of the largest factors in the success of a surgical and general practice, and there is no question but that from now on a considerable proportion of hospital growth will be due directly to individual physicians who feel the need of and realize the benefit to be had from owning and controlling private hospitals. But few subjects in relation to modern practice of surgery and medicine have caused more bitterness of feeling than the management of hospitals where too many wished control; therefore, prejudices and jealousies must be laid aside for the sake of the common cause. Mistakes must be overlooked, for much is to be learned—and learned by experience. Real success in any line does not consist in never making mistakes, but in never making the same one twice.

People sometimes talk as if a hospital was of benefit only to the patients treated there. No greater mistake could be made. There can be no great doctors without big hospitals. The hospitals give more education in six months than general practice will give in six years, and the spur is not simply on the young fellows beginning their work, the greatest surgeon alive has a stimulus in his hospital work if he knows that in his clinics there are perhaps numbers of intelligent and sharp observers watching to catch him at fault in anything. The community with a hospital has far better doctors than the community without one. So it has come about that the modern hospital does not stand for charity merely but for almost every step that is taken forward in medical discovery. It means an advance in surgical

skill that would have been impossible in any other way. It means trained nurses too, for few nurses could be trained outside of a hospital, so take it altogether, about every modern comfort that can be found at the bedside of the rich can be traced back to the bedside of the poor in modern hospitals.

"We have too many churches and too few hospitals," said a noted doctor in a recent address. Some people may be inclined to disagree with him but the statement as regards to our country is nevertheless true. The Great Physician when on earth left three distinct commands, "Go preach the Gospel," "Go teach," "Heal the sick." There is no doubt that the first of these commands is receiving attention. At least, if it is not, it is not because there are not sufficient churches erected for that purpose. Doctor Newell Dwight Hillis, of Brooklyn, in an article in "Everybody's Magazine," says that we have now one hundred and sixty-nine different denominations in the United States. Nothing is risked in saying that business men are now engaged in starving to death one hundred and sixty of them. In one town of eighteen hundred inhabitants visited by Dr. Hillis, eight churches and eight ministers were struggling for an existence. While this condition of overcrowding of churches is seen in every State, it is hard to understand how the command "Heal the sick" can be forgotten by the majority of Christians.

The burdens of hospital work are borne by a few, not the churches or church, as a whole, While magnificent progress in hospital work has been made in the last decade the needs are great. We need wards for contagious diseases; hospitals for chronic and incurable cases; orthopedic hospitals; sanitariums and homes for consumptives. And we need a great increase in endowment of the existing hospitals. The public needs educating, the church needs educating along hospital lines. Princely givers, so common in the European countries, are not to be found in large numbers in this wealthy country.

A Christianity or a philanthropy that meets the demands of the times will foster colleges, libraries, orphanges, homes for the aged and hospitals. To build libraries and place books in the hands for those eager for information is a great work, but to repair the defective and failing sight so that one can see to read and work is a far greater deed. To endow colleges so that the young can have educational advantages is highly commendable, but to remove disease and restore health and strength so that the helpless may be self-supporting and the body may have sufficient vigor to sustain mental labor is a far more worthy work. To establish polytechnic institutes in which young men may receive special training for a life calling is the doing of generous hearts but to take deformed and misshaped bundles of humanity and remove the crook from the back, straighten the twisted limb and deformed hands and feet and take the limp out of the gait so that the afflicted ones can enter the race of life freed from physical impediments is the noblest work man can do for his fellowman. The library, the college, the hospital, these three are here to abide, but the greatest of these is the hospital. We do not undervalue the library or the college, but the need and value of hospitals are in the present only dimly discerned. Eyes with which to see to walk, work and read are of far greater value than a book to be read; hands, feet and limbs with impediments and deformity removed are more necessary to the masses than a school of technology; health is of much greater importance to the average man than college training. Without eyes to see the library is useless; without hands to toil manual training is impossible; without health an education loses much of its practical value. Hospitals are the greatest of public necessities for they serve humanity in the time of greatest need.

I believe the best evidence of a progressive town and the greatest benefactor to its people in this day and generation is an up-to-date hospital.

A great opportunity now presents itself. Hundreds of our best people are going to the cities and hospitals of the North for work in surgery while hundreds of suffering men, women and children remain at home for want of suitable place they can reach where such work may be done.

Physicians of North Carolina, I appeal to you, ought this condition to continue? Let the physicians of every city, town and county unite and set themselves to work for the one common purpose of building and equipping the best and most modern and up-to-date hospital their money will buy.

First, it is economical, for that thousands, yea many thousands of dollars are going from us and enriching the North which we ought to keep at home.

Second, it puts relief in easy reach of hundreds of helpless poor who thereby are made strong, useful and profitable citizens, useful to the State, for that they are producers and no longer consumers.

Third, it is humane and Christian-like.

Good hospitals within easy reach of thousands of rich and poor alike are relieved of their suffering through the instrumentality of the physician and his skill.

No one can deny the value of the hospi-

tal. It is a part of medical progress and it has come to stay. The doctors whose services and time are needed and are a benefit to the hospital are men who have the power to raise the standard of work of the hospital, and who command a sufficient practice among paying patients to contribute materially toward its maintenance.

The care of contagious and infectious diseases in isolation hospitals has every advantage in caring for the same class of cases in private homes, for no class of diseases, has the public made so little provision, as for those ordinarily styled contagious or communicable. In some instances smallpox has run its course where the disease originated, even though it meant the risk of hundreds of valuable lives, and the result is physicians are largely left to fight single handed, not only the disease itself, but often in addition, ignorance, superstition and dirt, conditions that foster diseases of all kinds.

We have made much progress in sanitation within the last decade, but so much remains to be done that profuse congratulations of ourselves on what has been accomplished are hardly yet in order, rather in many towns we need some stimulus to urge us forward to safer grounds.

The existing boards of health in each county can do much to help forward the work of erecting isolation hospitals by urging and advising the county and town officials the great necessity of such institutions.

It is not necessary to have either large or expensive buildings for this class of diseases. At a cost of approximately three thousand dollars a one-story cottage capable of accommodating fifteen to twenty patients, bath and disinfecting rooms could be erected. This form of cottage is especially desirable for large and small towns. As these towns grow, as most of towns now of days are doing, additional cottages can be erected at a small outlay. The money-saving and life-saving work of such a system will do more to commend such institutions to a public confidence than any other form of hospital work.

The quarantining of the homes of the poor has a grave meaning for the men who struggle for bread for comfort, health and life are only half successful at best. When his bread-winning opportunities are cut off his situation is sad in the extreme. The quarantine of wealthier homes is decidedly inconvenient, to say the least. When families are crowded together in hotels and apartment houses the quarantine placard means serious business to all concerned. The isolation hospital solves the problem for the rich and poor alike, and the beauty of the scheme is the comparatively small outlay that is really necessary for the establishment of such work on a proper basis. Most towns and counties should be glad to pay for such institutions, as in the long run it would lessen expenses, as compared with the present system, and results would be far better; hence, the cost of maintenance need not deter the officials of the town and county from doubling their usefulness to the community at large by erecting an isolation cottage and thereby doing away with the rude uncomfortable pest-house where we do not feel willing to force our patients to stay with its accompanying inconveniences.

In conclusion, gentlemen, a few words relative to our organization. I cannot refrain from congratulating the Society on the success the new plan of re-organization has achieved, sufficient beyond all doubt to satisfy the most skeptical. In 1903 the State Society had some five hundred names on the roll, but only 283 were in good standing (on account of dues). In June, 1903, we re-organized and at that time had less than ten county organizations in the State. In May, 1904, we met and had double the attendance we ever had at any State Society meeting, and there has been sent out transactions for 1904 to 1065 members whose dues are paid up for that year. This speaks for itself. However, I wish to add that this fine showing is to a large extent due to the efforts of our efficient secretary, Dr. J. Howell Way, who has spent much time and energy in furthering the progress of the great work, there being few men who could have accomplished such results.

I wish to impress upon the different county organizations the importance of having an efficient, painstaking and business-like secretary as much of the work devolves upon him and much of the success of the Society is through his efforts.

The Society is also to be congratulated upon having such efficient members in the Senate and House of Representatives as to successfully defeat the progress and invasion in our State of quacks, osteopaths, and other designing fakes. To this same body is due also our thanks and the sincere thanks of the entire State in establishing a State laboratory of hygiene, which was much needed and is a public beneficence.

Gentlemen, I assure you that I appreciate the thoughtful interest with which you have listened to my remarks, and trust I have been able to drop some thought that will be of material help to yourselves and those whom you serve.

Personal Views on the Management of Typhoid Fever.*

By Edward C. Register, M. D., Charlotte, N. C., President of the North Carolina Medical Society; President of the Councillors of the Medical Society of North Carolina; Ex-President of the Board of Medical Examiners of North Carolina; Ex-President of the Charlotte Medical Society; Editor The Charlotte Medical Journal.

While we are still far from any specific method, capable of destroying the exciting causes of typhoid fever, or preventing its dissemination, or attenuating the activity of its toxins, we have perfected methods of treatment that are rational and scientific. In considering the treatment of this fever it is well enough to devote at least a paragraph to the subject of the general management of cases. We deal with no disease where carefully selected directions, properly carried into effect, bring us greater or more satisfactory returns. It is the little particulars more than even the intelligent use of drugs that deserve most consideration. Patients should be immediately placed in bed, certainly if typhoid fever is anticipated. By doing this we at once begin to curtail an unnecessary waste of vitality and physical force, that later on may play an important part in the saving of the life of our patient.

The removing of cases after they have contracted the disease is a question that often comes up and it is not every time easy to make an intelligent or wise decision in certain cases.

We accept the general belief, and our experience confirms the idea, that it considerably increases the mortality in cases of this fever that have to be moved, certainly to any considerable distance. It usually necessitates the loss of a night's sleep, the omission of a day's medical attention, an improper diet for probably a day, with anxiety and worry and a loss of more or less physical strength. It is the best, as a rule, to advise patients to remain where they are, if the environments are suitable and if the disease has developed to a point where a correct diagnosis can be made. Prior to this, my rule is to encourage patients to go where they can be best cared for. When the diagnosis has been made, and the surroundings are bad, even if the patient seems very sick, if other quarters are accessible and satisfactory and available, I often recommend the change.

It has always been a matter of doubt in my mind whether it is wise or not to invariably advise the use of the bed pan. I never in the majority of my cases insist upon its use. This practice is not exactly orthodox and may cause adverse criticism. In most cases it is only necessary to consider but one thing when this question arises—it is this, will its use cause less physical exertion, less effort and less expulsive force and straining, than if the patient is carefully taken up in a semi-recumbent position. I hardly think so. There is no more straining on the bowels in a standing or sitting position than in the lying, there is a slight difference in the blood pressure, of course, in these different positions in health, and the same rule prevails in fever cases. It is a prevalent belief now that the straining and expulsive force and effort used to move the bowels in the lying position with the hips elevated, causes in the majority of cases fully as great blood pressure and physical exertion as it will to let the patient be taken up. If the patient has a considerable diarrhea and is very weak with a tendency to hemorrhage, it might be well enough to encourage the use of the bed pan.

If practical the services of a competent nurse should be secured, members of the patient's own family are not, as a rule, satisfactory attendants. I prefer a trained nurse and a stranger. The termination of our cases will be greatly influenced by the skill and talent and faithfulness of our attendants. Sometimes competent and conscientious nurses make failures in certain cases. They do not seem to understand the peculiarities of the patient, or the patient does not appreciate the methods of his nurse, consequently discord prevails, just the condition that we want most to avoid. If the nurse is not satisfactory to the patient, if at all practicable, a change should be made. Nothing frets a case more than for him to think he is neglected, or improperly nursed.

The room of the typhoid case should be quiet, sunny, and well ventilated. It is always well enough to have two beds in the room, and let the patient lie on one during the day and the other at night. This may appear to be a small thing, yet there is a great deal more in it than most of us might think. It always makes a patient feel refreshed and better when he makes the change. He feels like he has gone to bed for the night, and is sure to rest better and feel more comfortable. The temperature of the room should range from 68 to 75 degrees if it is winter. Nurses should be carefully instructed about drafts. During the active fever stage there is very little risk in letting fresh air and cold air blow upon the patient, especially during the day if he is awake. If the temperature is running low and the patient is asleep, it is well enough to avoid drafts, but if he has any fever at all and is awake a draft is almost without

* Read before the recent meeting of the North Carolina Medical Society at Greensboro.

danger. If his temperature is normal and he is awake avoid drafts. If his temperature is normal and he is asleep during the stage of convalescence, drafts are very dangerous. I have seen more than one life jeopardized on account of cold drafts during the latter stage of this disease. The doctor however, in the country, or even in the city, who deals with newly made nurses and attendants cannot think to warn them at all times about everything that may come up, consequently, in important fever cases, they should be competent to begin with. Nearly every physician believes that we should have a very light room for these patients. Experience has taught me that it is not always the best. Often a bright light causes headache, nervousness, and possibly delirium when a comparatively dark room is much more agreeable to the patient and often enables him to sleep when a bright light would prevent it. A patient's choice about this is a much better guide for us to follow than an old rule that has been handed down to us for so many years. It may appear a trifling thing, yet I always consider it a good practice to inquire of all my fever patients how they like their beds. They should certainly be satisfied and pleased with them as much as it is possible. Sometimes they are too short, or too hard, too soft, or in ridges, and the physician and possibly the nurse will not know of it, and the patient will hardly have sense enough to complain. Looking after and preventing these little things that annoy and fret fever cases, often saves a great deal of wear and tear and exhaustion of their nervous systems. It is often over-lookek by nurses and even physicians, the importance of occasionally turning a delirious or weak patient over, from side to side and from back to side. I lost a patient once by neglecting to do this in the fourth week, on account of hypostatic congestion of the lungs. A mistake like this should never be made.

During the third week it is well enough to anticipate the presence of bed sores. A sudden rise of temperature about the twentieth day in this fever should always suggest this complication. They cause a fluctuating temperature in a larger per cent. of cases than is usually supposed. While the belief seems to prevail that the physician and nurse deserve reproach, when this dreaded sequela is in evidence, should be discouraged, we ought to recognize the fact that a suitable bed with proper attention given to cleanliness, bathing, etc., will reduce the occurrence of this complication to two or three per cent.

The mouth and teeth and nose of fever cases should be kept as clean as it is possible. It makes the patient much more comfortable. They should be washed several times a day with a solution of listerine and water. This possibly eliminates one of the sources of autoinfection, which very often produce, when all of the sources are included, just as much fever, just as much headache and restlessness and diarrhea, and I might add danger, as the typhoid poison itself.

In the general management of fever cases there is nothing that is of more importance than that of admitting visitors. They have caused more disastrous results and endangered the lives of more of my patients than any other one thing that I have had to contend with. Twenty years ago this opinion was not as well fixed in our minds as it is now, and I know of no other evidence that we are more proficient at the present time than formerly than this change in the care of fever cases. We have all observed the rise of temperature, the quick pulse, the restless wakeful nights that follow long conversations with friends who were kind but without tact.

A person's mind in typhoid fever should rest—it should be absolutely quiet. It is as important as the quiet and rest of the body. Anything that will cause the mind to act should be avoided. It is unwise to let fever cases in their convalescent stage, while they have any fever at all, to even look at pictures. This will make them think, and thinking is an action of the mind that ought to be avoided. To have anyone read with fever is an objection well known. To have anyone read to a patient is never allowed among my cases. For them to listen to a conversation, even if they do not participate in it themselves is harmful. After the fever has entirely subsided and after they have had no elevation of temperature for several evenings, I notice that patients very often want some company. It does not usually do them any harm at this stage and I begin to let them receive their friends. During the active fever stage, members of the family should be excluded as much as it is possible. The importance of regulating the number of visitors in all kinds of fever cases now, is so well known, that we have little difficulty along this line, compared with a few years ago.

It is, indeed, a very difficult matter to properly nourish a typhoid case. When I can intelligently feed a fever case, I can usually give a favorable prognosis. We are fortunate if we can conduct a case through and at the end cannot point to some period, where we either overfed, or underfed, or fed improperly. It is well enough for us usually to adhere to some general rules. A patient should always be fed on fluid nourishment, and this should be kept up at least

a week after the temperature has been normal. I am not in sympathy with the usual plan of giving nourishment at fixed intervals, this should be done as much as possible, but it is not always practicable to do this, especially if your patient is not a good sleeper. It is my custom to give nourishment every three hours while the patient is awake. It is seldom that I ever have a patient of this kind waked for the purpose of taking nourishment. We may sometimes find cases that sleep a great deal, and it might be necessary in these cases to disturb these long sleeps for the purpose of giving nourishment. I never have seen but one good sleeper, suffering from typhoid fever die. I usually feel satisfied about a patient whenever fever produces sleep, and I always feel uneasy when fever produces insomnia. I consider it very unfortunate always when the patient will not sleep except when aided by medicines, and I am very slow usually to resort to medicines of this class. It is generally believed, and I am in sympathy with the belief, that milk is the best food for typhoid fever, and I usually prefer sour milk, or buttermilk. This may not be an ideal food, but it seems to be the best that I know of. It seems to produce less nausea and less evidences of indigestion than anything else in my patients. It is less likely to produce tympanites, or diarrhea, than any other form of food. This may not be correct but I believe that it is. I suppose that I give buttermilk as food in nearly eighty-five per cent. of my fever cases. I don't believe that I use sweet milk in over ten per cent. of these patients. This, apparently, ought to be the best food, especially if it is fresh and properly diluted with lime water and properly given. I very often add to it a little carbonated Harris Lithia Water. This makes it a very palatable food. It is my favorite in fever cases next to buttermilk. It is seldom that I give over half a glass of milk, either buttermilk or sweet milk every three hours while the patient is awake, and my instructions usually are to keep this up during the night, if the patient is found to be perfectly awake, otherwise it is not given at all during the night, that is as a rule. I can, however, recall many cases in which I have made exceptions to this. If sweet milk is given it should be taken very slowly, I often suggest giving it with a spoon. This will prevent large solid curds in the stomach, and will make the milk easier digested. The milk diet, even if intelligently used will not suit every case. It will cause gastric disturbance that may annoy the case no little, possibly produce nausea, vomiting, tympanites and diarrhea. These cases, in my hands, have been very few, not over five per cent. I can now recall but a few such cases. The milk may be replaced by soups, or animal broths; when this is necessary we often have to rotate from one to the other, as the patient tires on this food quicker than on milk. I have gotten in the habit lately of using Armour's Beef Extract, when a substitute for milk is necessary. This is easily prepared and very palatable. If there is any reason why this cannot be given, I have prepared chicken tea, or beef tea. I make this preparation as follows: take one pound of tender chicken, or a pound of tender beef, beat it up thoroughly, put it in cold water enough to float it, gradually heat to a simmering point for over an hour, then boil for five minutes. The addition of salt and pepper make it a very delightful and nourishing food. It is a prevalent practice among some physicians, when sweet milk is not acceptable to the patient to add whiskey. This is a practice that I abandoned a great many years ago, never to take up again. Broth made from beef, mutton, veal, or chicken, with rice or barley or tomatoes may be, after it is carefully strained, given to patients, and it is often relished and apparently suitable. But as I have intimated, I always feel a little uneasy when my patients have to be fed in this way. Peptenoids and panopeptone have their value, and they are usually accessible and easily prepared and seem to be satisfactory in many cases. I have often fed cases through an entire attack of fever on one of these products alone. During the cold months we are asked about oysters and oyster soup. Oyster soup is as safe as any of the soups I have mentioned, and often very well received by the patient. I have known competent physicians to give raw oysters to fever cases. I may be wrong, but I admit that I have a great prejudice against this method. I am also greatly prejudiced against raw eggs given, as they usually are in these cases, beaten up in a glass of milk, often with whiskey and sugar added. Gruel, or any of the semi-solid foods, or milk shakes are equally as objectionable. Several years ago, with misgivings, I gave the white of eggs, and some times eggnog to typhoid cases, but soon abandoned the practice, I believe anyone who can observe intelligently, and will observe can easily see the evident mischief that this class of food often produces. It is a practice with some, and I have indulged in it myself to some extent, to give food every hour or two, but I have abandoned this method. You are likely to overdo the thing when you do this, and if we make a mistake at all in feeding a case, it is better to under-feed than to over-feed. A half glass of broth or milk or soup too much

may cause a disorder that it will take days to correct.

Water should always be given freely. It will eliminate better than anything else the waste products that accumulate in the system. It should always be given at stated intervals if the patient is not thirsty, but as a rule he should never be disturbed when asleep. If he does not care to take it freely, he ought to be encouraged to do so. Usually I have a glass of ice water on a table by the bed, so the patient can take it ad libitum. If he neglects to take it himself, or is delirious, I have the nurse at least once every hour to give him a drink, and always note the amount taken in twenty-four hours. Usually a man weighing 150 pounds, during the active fever period, can easily take fifteen or twenty glasses in a day and night without any feeling of discomfort.

I often give lemonade, really I suggest it in nearly every case. I give the pure lemon juice and water, I seldom add sugar, as sweet lemonade always causes flatulence, and I have known it to produce nausea, vomiting and diarrhea. The juice of a lemon in a half glass of water, three or four times a day is very refreshing and is considered acid enough in fever cases.

Alcohol has a very limited use in the treatment of typhoid fever. Occasionally I give it, but always have a specific reason for doing so. I never have believed that it is in any sense a very valuable heart stimulant, and I never use it for this improbable action. It is not a heart stimulant proper, but may be so indirectly, like morphine, or any drug that has a tendency to quiet the nervous system. As a food it is of very little value. I have seen cases that were very restless and nervous and wakeful that whiskey would quiet and soothe when nothing else seems to do well. I have also seen it quiet delirious patients, when other means failed. These cases are very few, for as a rule, it causes more nervousness, more irritability, more insomnia and more delirium. If it produces sleep and quiet and moisture of the tongue, it is indicated. Usually it makes the tongue drier, tends to wakefulness, restlessness and delirium. The number of cases of typhoid fever in my practice, where alcohol is indicated, will not exceed ten per cent. In severe hemorrhages, or in perforation, or in fact anything that causes a sudden depression of an already enfeebled condition, alcohol might be given to advantage. When the nervous system has become exhausted, and muscular weakness has come on gradually, and is well marked, alcohol is not of very much value. I always give fever patients who have passed the age of forty-five more whiskey than younger subjects, and if I find that the patient has been in the habit of taking a great deal of whiskey regularly, prior to his attack of fever, it is never withdrawn abruptly, but continued as the case indicates. It certainly, in such cases, requires more than in a person who is young and who has had temperate habits. In people past middle life, stimulants, especially strychnine and whiskey are of great value. They are especially so with the aged, but we see typhoid fever very little in this class of patients. A great deal of injury is often done in giving young people alcohol in the active fever stage. Among my cases it has almost invariably produced more weakness and more irritability and more raving and loss of sleep than I believe would have existed without it. When I give it all, I give few doses and large quantities. I have seen cases where fright and worry and anxiety were about to jeopardize my patient's life. In these cases nothing seemed to act better than a good drink of whiskey occasionally. It does away with that feeling of disquiet, and that feeling of fear and danger that often saps a great deal of the vitality of our patients. It is in this class of cases that we are often deceived about its real value as a heart stimulant. We find here a fast, irregular and weak pulse, a good dose of alcohol will make them slow and regular and full. Morphine would have a similar effect, but is not as desirable for reasons well known. I often give champagne for nausea that occurs during any stage of the disease.

Cold water is the best means of reducing high temperature. This is now generally admitted by all physicians. We never resort regularly to the tub bath, it is only in a small per cent. of my cases that we have used it. It is well enough to only use the tub bath when the cold packs and cold spongings are insufficient. Ninety-five per cent. of my cases are treated by cold spongings and cold packs, and usually I have very little difficulty with these means in keeping the temperature in the neighborhood of what is satisfactory to me. I use the cold pack in about thirty per cent. of my cases. My method of using it is as follows: The bed is protected with an oil sheet, on that is placed a woolen blanket, on that a wet sheet of the temperature of 60 to 65 deg. Fahrenheit; the patient is put on that and it is neatly and closely folded round him, then the blanket is fixed the same way, with a cold towel round the patients head. This process is repeated about every fifteen or twenty minutes until the temperature is at a satisfactory point. As I say, this method is resorted to in not more than thirty per cent. of my cases. I never treat a case of fever without using the cold sponging, and it is not always either that I advise ice

cold water for this purpose. Sometimes the water has a temperature of 90 degrees, and sometimes, of course, as low as 60. It is a favorite plan of mine to add alcohol or vinegar or ordinary common salt to the water used in this sponging. Rubber bags filled with ice applied on the head or abdomen sometimes is a method of abstracting heat from the body, that I use. It is not sufficient in severe cases. There is no doubt that they are capable, if they are properly used, of taking from the patient a great deal of heat that he otherwise would have. The nurse is always instructed to remove the ice bag when the patient drops off to sleep, especially is this precaution necessary in cases where the fever is on the decline and is apt to approach the normal. In such cases it would be sure to produce a subnormal temperature and possibly bronchitis, neuralgia, or some lung complication that might cause us anxiety and possibly endanger the patient's life.

The medicinal treatment of the disease has been greatly depreciated in the last few years, more so than it should be. Few of us conduct a case through without prescribing several different drugs, with no idea of aborting or curing it, but to modify symptoms and prevent complications. We will take up systematically the drugs used here. One of the oldest and still one of the prominent drugs used in typhoid fever in quinine. It has been used in this disease ever since the two have been known, and to-day in the hands of some it is a popular antipyretic. It has been my practice in the beginning of all fevers to give quinine in large doses when the fever intermits, that is when the patient has fever only in the afternoon, and it reaches normal in the early morning. With the proper diet and thorough elimination and rest, with large doses of quinine, if the fever continues for five or six days, I conclude in all probability that it is a typhoid attack, unless it is due to some local cause that is easily recognized. In the latter part of an attack of typhoid fever, if the patient is not very much exhausted and the fever reaches normal in the morning and runs up a degree and a half to two degrees in the afternoon, quinine will often shorten these afternoon fevers, but whether it favorably influences the pathological lesions that produce these afternoon fevers, is questionable, and whether you really hasten a satisfactory convalescence is still doubtful in my mind. I do not invariably follow this plan now, but at one time in certain cases, it was almost my routine practice. I always give it in large doses at night, it acts better then. It never does any harm in any case, even in large doses, if it produces sleep, but I am rather doubtful at all times the wisdom of its use, if it produces insomnia, I mean in typhoid fever. Antipyrine, phenacetine and antefebrin have all been used to reduce fever. Some of them are used now but to no great extent. It is extremely uncommon that I prescribe any of these drugs at all in this fever. They are invaluable in fevers of short duration with the exception of pneumonia. Certainly all fevers of long duration do not call for this class of drugs.

There is unquestionably a great deal in the antiseptic treatment of the disease. It does not in any way, so far as I have been able to see, cut short its duration, or have any tendency whatever to abort or cure an attack, but it will relieve or modify very important pathologic conditions that cause ugly symptoms. A great many antiseptic drugs have been recommedded, but I am inclined to believe that there is not, among the best ones, so very much difference in the effect. I have used calomel, carbolic acid, tincture of iodine, turpentine and salol more than any other drugs. In the beginning of a continued fever, if I anticipate typhoid, I give good doses of calomel, enough to bring about a decided physiological effect. After the first few days, it has not been my custom to use it, although I have used the drug in all stages of the disease. When constipation is present, I have prescribed one-tenth of a grain of calomel every hour, or every two hours, or every three hours until the bowels act. This has not been my custom in the last few years. I usually recommend the use of enemas. I would not, however, criticise any doctor who would have a desire to follow this plan that I have practically abandoded. The carbolic acid and iodine that were so popular fifteen years ago have not been used in my practice for several years. When I use a drug at all with the hope of getting an antiseptic action of the bowels, I use salol. As I have said, it may not be any better than the others, which have equally as good reputation, yet it is the drug that I use. It brings about the results that I give it for, namely: it flattens the bowels when tympany exists, it checks diarrhea, it brings down the temperature, and makes the evacuations almost odorless, it causes very little disturbance of the stomach, and its administration carries with it as little danger as that of any drug. I usually give it in powders, and I have not modified my plan, so far as the quantity is concerned for several years. When I select salol as a bowel antiseptic, I give it in much larger doses than that usually suggested in most of the text-books. My maximum quantity to be given in the twenty-four hours was formerly about sixty grains. This quantity is in most cases sufficient, but in nearly half of

my cases where the temperature has a tendency to run very high and where there is a considerable amount of tympany and a decided tendency to diarrhea, I often give as much as fifteen grains every three hours, and in a few cases I have given as high as twenty grains every three hours. There is a plenty of authority now to justify this practice, but there was not when I first adopted it. I can recall very well that I have often instructed nurses not to put on their charts the quantity of salol given, for fear that my plan might be considered too radical. I don't know that I have ever given over one hundred and twenty grains in a day and night, but as I have said, I reach this amount occasionally. In doses of this kind it is a decided antipyretic. It should never be given in this quantity unless the conditions that I have mentioned exist classically. Recent experiments have established facts that have been a source of gratification to me and have strengthened my belief that salol is a good disinfectant for the intestine, possibly the best.

Retained urine is a common thing in typhoid fever, and it is commonly known among physicians now that it does in a great majority of cases contain many typhoid bacilli and that they are often re absorbed, and that this is one of the sources of re-infection, or auto-infection. I have never demonstrated it, but it has been shown by apparently reputable observers that forty grains of salol in twenty-four hours will perceptibly lessen the number of the typhoid bacilli in the urine and that eighty grains per day will almost eliminate them entirely.

I am greatly prejudiced against what is usually known as the eliminative treatment in typhoid fever. I mean alimentary elimination. I have already mentioned my ideas of the elimination in the treatment of fever cases that is necessary. If the bowels are thoroughly washed out during the first few days of the attack, I seldom, if ever, recommend the further use of alimentary eliminatives. I know theoretically it is a plausible plan, and it looks like it would be well enough, when you give drugs to disinfect the contents of the alimentary track, that it would then be wise to wash it away, that is the exudate, the sero-purulent fluid from the ulcerated surface of the bowels. This is a beautiful theory, but in actual practice it will not do. I hope I will not be considered discourteous or dogmatic to depreciate in any way the opinion of others, but I am so convinced that purgatives, I mean active purgatives, during the second and third week of typhoid fever is so commonly the cause of mischief in my cases, that I am actually afraid of the procedure. I never propose again to take, or share the consequences, or responsibilities in any case where this practice is insisted upon by my associate. My cases have never done well with such treatment. It is certainly in my opinion not a rational procedure.

The management of certain symptoms and complications, such as headache, insomnia, delirium, vomiting, diarrhea, constipation, and hemorrhage deserve our consideration. I will pass over these headings briefly. For headache, unless it is a very severe form, medicines are not indicated. A cold ice bag to the head, and sometimes hot applications will relieve it. It usually passes off after the first week. It is always due to improper elimination, or indigestion, or assimilation, or diet. As soon as these functions are better established, the headache passes away. In only a very small per cent. of cases does it continue after these corrections have been made. When it does, I am in the habit of giving some simple remedy, like tablets of antikamnia and codeine, a few of these are usually sufficient to relieve the most obstinate cases. Insomnia in typhoid cases always gives me great concern and anxiety. These cases, so far as I have observed never do well—a large per cent. of them die. Hypnotics here, as a rule, are unsatisfactory, their action is very uncertain. Opiates, one of our most reliable hypnotics. will only produce sleep about one time in ten in my cases. Chloral, about four times out of five. Trional and sulphonal about one time in three. Whiskey about one time in twenty. After the best of these act beautifully, I never detect the refreshing effects from them that I anticipated. When I leave my patient tossing about all night in a semi-delirious state, getting a little nap here and there, making a total of some two or three hours, I find that his condition is more satisfactory in the morning than if I had produced an artificial sleep of seven or eight hours. This hardly seems plausible or rational in such cases, but such has been my experience. It is seldom that I use hypnotics in typhoid fever. In delirium I have never found any drug that is very satisfactory. Possibly bromide of potassium is the most satisfactory of them, although I have used valerian, dover's powders, whiskey, and hyoscine. The hyoscine did not come up to what I expected. In about five per cent. of my cases large doses of whiskey act very well, in the remaining cases it seems to aggravate the condition. Hot sponge baths with a great deal of friction, sometimes has a very soothing effect. In vomiting usually one drop of carbolic acid in a teaspoonful of lime water and cracked ice will act satisfactorily in a great majority of cases, in connection with a mustard poultice on the stomach and the

suspension of diet and drinking for a few hours. If this is not sufficient when properly employed a glass of water at an ordinary temperature should be given. Sometimes this sticks and relieves the intense thirst that very often accompanies these attacks of nausea. I have often used a hypodermic of morphine in such cases. The remedy, however, that will control the largest number of cases is champagne in a little crushed ice. Cocaine and bismuth in a great many cases act beautifully.

Tympanites is usually due to two distinct causes, one is amenable, the other is not. When the swelling is due to fermentation of products that lie in the alimentary canal it is of trifling consequence and can usually be remedied by antiseptic measures and a slight laxative and correction in the diet. But if it is due to paresis, that comes on in the latter stage of very severe cases, it is entirely a different proposition. This means almost sure death. When we feel confident and have every reason to believe that we have fed our case intelligently, and that there is nothing remaining in the alimentary canal that would produce distention by fermentation, and our patient shows all signs of weakness, like delirium, weak pulse, and sagging of the eyelids, with extreme tympanites, we have a condition to deal with that is very dangerous and one that cannot be relieved. When the tympanites is due to paresis the use of turpentine and large doses of strychnine are about the only things that can be done. Enemas and purgatives and laxatives seem, in these cases, to aggravate this condition rather than relieve it. The use of the long rectal tube has been used in many of my cases, but with no very great benefit. I have seen a few cases that were restless with a considerable delirium and evidence of pain that were brought about and continued for days at a time by the retention of urine that had been overlooked. This is a mistake that ought never to be made. It is a usual practice of mine, if I have a case of fever that is extremely ill, and especially if they are delirious, to run my hand over the region of the bladder and examine especially for this common complication. I can recall many cases where this condition was overlooked.

A persistent diarrhea, one that cannot be controlled, always alarms me. The old idea that two or three or four stools in the twenty-four hours were beneficial and should be encouraged, is entirely contrary to my idea of the subject. The mortality of my cases that have had this amount of diarrhea for ten days at a time has amounted to fully twenty per cent. On the other hand I am yet to see a case of typhoid fever die that was constipated. When by ordinary means we can keep the bowels from acting for three or four days at a time, the mortality in this part of the country will not reach five per cent. This has been my experience. After the first week to encourage what is supposed to be a harmless diarrhea and the persistent use of alimentary eliminatives are methods that I believe are dangerous. To encourage peristalsis when the bowel is congested and inflamed and ulcerated is, as it appears to me, very irrational. The retained secretions of the alimentary canal that concerns, really alarms so many physicians, if let alone does very little harm. This canal is in the habit of taking care of this kind of material. When it is disturbed the poison must multiply, and absorption must take place, for our patient usually has a quicker pulse, a chilly feeling, more fever, more tympanites, more restlessness and more delirium.

I usually give bismuth and opium combined with salol for these cases of diarrhea. I never let the bowels remain unmoved for ten days to two weeks at a time, as some do, although I have seen many cases of this kind, and have never yet noticed anything to regret about the practice. I encourage the bowels to act every four or five days during the second and third and fourth week. To do this I recommend enemas of water, sometimes I add a little glycerine or turpentine.

When I meet with cases of hemorrhage, I am always alarmed. It is a much more serious complication than the text-books lead us to believe. Fifty per cent. of my cases have died with a history of hemorrhage. It has been suggested when hemorrhage occurs during the first week, that it is not a bad sign. I have never had a case where it occurred during that period. Treatment in such cases is very simple. I give opiates freely, keep the patient absolutely quiet, an ice-bag to the bowels, and almost a suspension of food for a day or two. The opiates should always be given in a liquid or powdered form, and in fact all medicines in a severe case should be given this way. I have observed at least a dozen times evidences that the alimentary juices were unable to dissolve capsules or pills. Some few years ago I drifted into the habit, in cases of diarrhea or hemorrhage of giving the prepared pill of opium and nitrate of silver, and in a large per cent. of my cases I noticed no benefit whatever. When I would change to some form of opiate that would certainly be absorbed, my patient would show the physiological effects of the opium immediately. I have never been able to observe any benefit from the administration of ergot, although it is usually given in my cases. Astringents given by the mouth

cannot possibly reach the seat of the disease for many hours, and even whenever they do, their action may be doubtful. I usually encourage the plan, however, of giving silver or lead in such cases. In cases like this where a tendency to collapse is present, the use of whiskey can be given with much benefit.

In the management of convalescent fever cases we have again to contend with the problem of how to feed our patient. When the temperature has remained normal in the afternoon for a week I give one reception cracker in half a glass of milk every three hours. If this is satisfactory and produces no harm, the next day I give two crackers in a half glass of milk every three hours. If my patient continues hungry and does not tire of this diet they are increased every day. The fourth day I give a soft boiled egg with toast three times a day in connection with the crackers and milk, and gradually increase the diet in this way. A patient can eat twice as much, without any evidence of indigestion or being overfed, by remaining in bed, consequently I keep my patients there for two weeks after I begin to feed them, then there is but very little cause for uneasiness about mistakes in diet after the patient gets up. I have often seen cases at the end of an attack when the fever was normal in the morning, but slightly elevated in the afternoon, fret and worry so much about eating that it would in all probability be responsible for this degree, or degree and a half of fever. In such cases it is well enough to give a few crackers and possibly a soft boiled egg and note the result. If it satisfies the patient, the fever is from a pathologic cause and not of nervous origin.

Tuberculosis of the Peritonaeum and Pleura,

By Nat G. Clark, M. D., Eusley, Ala.

In taking the above subject, I have taken one that is interesting, from the fact that while the morbid anatomy of tuberculosis of these two sites is practically the same, and a form of treatment for tuberculosis of the peritonaeum has been instituted which has given fairly good results, the same line of treatment cannot be carried out in tuberculosis of the pleura, for obvious anatomical reasons.

I will only consider these conditions from the standpoint of treatment, and with only such discussion of pathology, etc., as would modify the treatment and prognosis.

I am basing my paper on ten cases of peritoneal tnberculosis, and the same number of pleural cases at the prison hospital, at Pratt City, Ala. These latter cases were all treated as will be set forth in this paper. I will only consider those cases for which some good can be done by treatment, i. e., chronic tuberculous peritonitis and pleurisy with effusion. These patients were all negroes, and convicts, the class of patients for which it is hardest to do anything, if tuberculous. I do not doubt that a better class of patients treated by the same methods would yield better results.

The treatment of chronic tuberculosis of the peritonaeum with effusion has been, to open the abdomen, let out the fluid and sew up again; this has been modified by differ, ent operators, by washing out the abdomen sponging off intestines with mild antiseptics, inserting drainage, etc. I have washed out some abdomens, but could see no advantage derived, so I discontinued this, and simply opened, drained and closed without permanent drainage.

Now, I want to notice the difference at autopsy between those cases aspirated for the effusion, and those opened, drained and closed. In those aspirated the abdomen had refilled or partially refilled and there were no adhesions between loops of the bowels. The tubercles on the peritonaeum stood out plainly. In those cases opened and drained, the intestines were matted together by a layer of fibrin, and in nearly all cases there was no fluid. The individual tubercle could not be made out in cases of long standing after the operation. This may possibly throw some light on the method and cause of cure in cases that do get well, but this will have to be worked out by those skilled in autopsy and laboratory work. I have only one suggestion to make as to technique of operation, and that is that tier sutures of catgut should not be used, as by its capillarity it is liable to infect the wound from the abdominal cavity, as happened in two of my cases.

Of the ten cases under observation, two were not operated upon, one died and the other has made a symtomatic recovery. Of course in this case a mistake in diagnosis might have been possible, but the clinical picture was perfect.

Of the eight operative cases three were discharged cured as far as could be discovered; one after nearly two years is living and improving slowly. This is one of the cases in which the incision became infected with tuberculosis, from catgut; the other four died within two months after operation. One of these recoveries was operated upon by Dr. B. G. Copeland at the prison in 1898, and is to-day well and hearty. As far as examination by me could ascertain, these three men are cured of tuberculous peritonitis. No doubt some have tuberculous trouble elsewhere.

There is a great diversity of opinion as to

how this opening, draining and closing effects a cure, but all agree that it does in favorable cases.

The morbid anatomy of tuberculous peritonitis with effusion and tuberculous pleurisy with effusion, is necessarily the same, except that in pleurisy the constant movement of the lung and rubbing together of the pleurae before the effusion occurs, results in more fibrin being deposited on the surface of the pleura than occurs on the peritonaeum. For tuberculous pleurisy with effusion the ordinary method of treatment by aspiration is not successful. The lung is forced from its compressed place in the apex and inner wall of the pleural cavity, thus distending the inflamed pulmonary pleura, disturbing and possibly rupturing and tearing infiltrated and caseous areas in the parenchyma of the lung. My observation in cases treated in this manner, at the prison —the period of observation is since 1897, and must include not less than fifty cases—is that they nearly all die in two or three months, and of general miliary tuberculosis. This I believe to be the result of tearing and stretching tuberculous areas in the pleura and lung, giving a direct systemic infection.

Aspiration by the old method rarely removes more than half the fluid, induces coughing, sets up the pain again, and is a general shock, so much so, that I have seen syncope result in several cases. I have seen three cases treated by resection of a rib, and drainage. These cases required dressing daily, all became infected by pus germs and all died.

For a year I have been treating these cases as near as possible, in line with the accepted treatment of tuberculous peritonitis with effusion, i. e.: by the withdrawal of the fluid and the introduction of air into the pleural cavity. I do not know that this is original, nor do I claim originality, for the method. There is practically little danger in an aseptic pneumothorax, as is proven by the numerous cases of stab, pick and gunshot wounds that recover without any trouble. The air is removed by absorption in from one to three weeks, and no bad results occur. There is practically no shock in removing fluid from the pleural cavity and introducing air, as a condition of equilibrium of internal and external pressure is brought about.

In cases of large effusion. when an aspirating needle, or canula, is introduced, the fluid will flow for a time from internal pressure. This is due to the retractility of the chest walls, and the expansion of a compressed lung. As soon as the internal and external pressure is equalized, this flow stops, and on examination the patient is found easier, but at least two-thirds of the fluid remaining. Now, if an aspirator is attached, the pressure in the bottle removed, the air rushes in a retracted lung, forcing it out to fill the pleural cavity, and the bad results of stretching diseased areas in the pleura and lung commences.

If the disease of the pleura has been severe, and compression of the lung has existed for some time, with as thorough work as can be done with the aspirator, the lung refuses to fill its normal space, and from one-third to one-half of the remaining fluid is left in, to reinfect all abraded, stretched and torn places in the pleura, consequently we have a systemic infection, and general miliary tuberculosis follows.

At the time the aspirator was attached to the canula, if instead of doing this, a rubber tube, filled with water is attached, and a small aspirating needle is introduced about one space above the first one, this improvised syphon will start the flow again, air pressing into the cavity through the second needle, and in this way all fluid can be removed, that can be reached by the end of the canula. This removes nearly all the fluid, leaves the lung at rest, gets what benefit is derived from the introduction of air into a tuberculous serous cavity; it also allows the diseased pleura and lung to be gradually drawn back into its normal relation in from two to four weeks instead of in two minutes.

This is a rational procedure, and I will append the results in ten cases:

Symptomatic recoveries, 2; Improved and returned to work, 2; Recent cases, improving, 2; Lost sight of, discharged, 2; Dead, 2.

There is a possibility of a mistake in diagnosis in some of these cases, and the number is not as large as I had hoped to be able to present, but from my previous experience with pleurisy with effusion, at the prison and in the negro convict, I am convinced that 95% of all cases are tuberculous, if not more.

There is this to say in conclusion, for this procedure—it lessens the liability to general infection, does not produce cough, gives the therapeutic benefit of the introduction of air into a tuberculous serous cavity; does not produce enough shock to prevent the patient from walking away from the operating table, and is not dangerous.

I wish to thank Dr. H. M. Martin, of Wetumpka, Ala., for help given me in collecting data.

Some Observations Upon Influenza.*

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La Grippe is now practically co-extensive with civilization and possesses interest to each and every practitioner, be his work general or special and for that reason I have to-night chosen it as my subject. Within the last decade and a half Influenza has penetrated to the smallest village and hamlet, its spread having been extremely rapid. I know of no infectio-contagious disease capable of producing such widespread havoc, such manifold and remarkably morbid pictures. I think it will be admitted by all reflecting physicians that this disease is now with us practically all the time, with possibly no hope at the present to escape from its recrudescence. In the country where habitations are widely separated and communication limited, we see isolated cases, but in the large commercial centers that are visited by travelers we may always expect the infection to exist and to be carried from one place to the other. In cities we find the inhabitants especially prone to recurring infections and having to adopt special measures to prevent its ravages. No single acute infection is such a serious menace to those in middle life and old age as this, and my personal observation has been that where arterial hypertension and arteriosclerosis exist we may expect profound disturbances during the acute stage and tedious and trying recovery.

The bacillus of influenza or Pfeiffer's bacillus possesses interesting features and produces toxæmia, bacteremia and inflammation (purulent). Analyze this for a moment; the influenzal bacteria entering with the air into the respiratory organs settles upon the mucus membrane of the nose, throat and bronchial tubes, where it proceeds to develop in enormous numbers and excrete the poisonous products which rise during their life activity. They may not penetrate the mucus membrane and where this is the case the symptoms produced are those of a pure toxæmia, that is to say the poison is absorbed and circulating through the system produces distant effects. Or, the bacillus may penetrate, enter the circulation and cause a true bacteremia. The bacteria that have entered the circulation may settle in some organ or tissue, causing inflammation followed by the formation of pus.

As a cause affective, the bacillus of Pfeiffer is probably the origin of more diseases than any other known cause, a wide statement, but nevertheless true.

The sputum is rather characteristic, of a greenish yellow color, is tenacious, thick and adhesive, coming from the nose, throat and upper air passages. In the sputum we find bacilli in large numbers, in fact, nearly a pure culture, showing as fine filaments being the smallest bacillus cultivated. Cover glass specimens taken from the sputum are best stained in a solution of carbol-fuchsin diluted ten to twenty times, ten minutes being the time usually required. With the clinical history of this kind and the appear- of innumerable fine bacillis of uniform size, is usually diagnostic. Great difficulty has been found in cultivating these bacilli outside of the human body, they growing best in a sodium chloride solution of hæmoglobin which has been proved to be due to the hæmoglobin itself and not to the ozygen which it absorbs, although these bacillus are strictly aerobic. They are killed by contact with water, by drying and for this reason the contagium is usually conveyed by moist mucus. During the acute stage we find the bacilli present in the mucus ground substance while during convalescence they are found degenerating in the pus cells. It is difficult of production in animals, although it has been inoculated into the monkey successfully. The action of this germ causes functional disturbances of all organs, the changes and symptoms being largely due to the poison circulating in the blood.

Of all the symptoms attributable to La Grippe we may safely say that those pertaining to the nervous system are predominant and that this disease produces more organic and functional nervous trouble than any other acute infection. So extensive is its action upon the nervous system that it may be a casual factor in practically all known nervous affections. A careful study of the forms of grippe will show that the picture is never complete without a large number of nervous symptoms.

The onset of the disease is usually that of a general discomfort accompanied by headache, limited mostly to the forehead. Soon after this muscular pains, especially of the legs, together with backache is rapidly

* Read before Louisville Medical and Surgical Society at Louisville, Kentucky.

added. The patient soon begins to experience chilly sensations followed by a rising temperature to the height of 102 to 104 with a pulse ranging from 84 to 120. By this time nervous depression and physical prostration have rendered the patient, as a rule, incapable of very much further exertion. The nose begins to run, the throat and tonsils become sore, hoarseness is frequently added together with bronchitis. These symptoms continue a variable length of time, depending upon the condition of the patient and the vital resistance inherent in his tissues. I have seen a few cases of the gastrointestinal type in which symptoms of diarrhœa and inflammation of the entire tract has been superadded. It is no uncommon thing for colitis to be left as an after effect. Nearly all the symptoms are persistent and slow to recover, and are subject to a rise and fall during the next stage, this being especially true of the symptoms referable to the air passages, for patients are left particularly prone to coughs, to "catching cold," to sweating, neuralgias, pain, etc.

Following the above attack the patient enters the chronic or post-grippal stage, and of these caset I have had a most extensive experience. Two conditions stand out prominently, owing to their frequency as a sequela of the attack, these two being adnamia or general debility and neurasthenia. Nearly every case suffering from grippe experiences in some degree, the debilitating influence of its poison, this being shown in the slowness of recovery and the general sense of prostration, and incapacity that follows the attack. I draw the distinction between these cases and those presenting the symptoms of true nervous exhaustion or neurasthenia, the former might be more properly called neurasthenoid. Neurasthenia, following the grippe not only possesses the general run of symptoms in this affection, but in my experience has shown a peculiar tendency toward that of a depressed type, in fact, has at times, bordered closely on to a psychosis, melancholy in character. These patients are apt to be morbid and have a fear of the development of further serious disease. Of isolated symptoms, *headache* is prone to remain, the pain varying from a dull, heavy boring one to a sharp and lancinating pain. It is usually worse during the morning and is oftentimes relieved by rest and quiet. *Insomnia* is nearly always left over and if there is the slightest predisposition towards a loss of sleep we may count upon the grippe intensifying it to an inconvenient extent. Backache and weak back are symptoms that oftentimes last for weeks and sometimes alone drive the patient to the physician for help.

Passing to the less common conditions I would mention neuralgia which, in my cases, has been located mostly in the facial, the intercostal and lumbar nerves. I have often found it difficult to differentiate these neuralgias. Neuritis occurs with a fair degree of frequency, and may be of the single or multiple type. Where it is of the multiple type care must be taken to eliminate alcohol and specific disease. It is oftentimes difficult to separate the neuralgic pains of the back from those of a true neuritis.

All kinds of paralyses take place, the most common in my experience being that of the facial nerve. These paralyses may be of a single nerve, supplying a muscle, or of several nerves supplying a muscle group.

Inflammatory conditions of the gray matter of the brain may be focal or general and simple or purulent encephalitis, This condition is the cause of an important group of paralyses, resulting from the direct action of the toxin or bacteria upon the gray matter of the brain substance. I have seen two cases of this kind in which high fever, coma, delirium and convulsions were present, disappearing with the abatement of the condition followed by a slow convalescence and recovery. Three interesting cases of localized disease of the cortex have come under my observation, one a paralysis of the left arm, one a facial palsy, and another a case of motor aphasia, two of these cases have made perfect recoveries, the third, a case involving the arm, an imperfect recovery. In the same way the poison may act upon the spinal cord causing an inflammation of the gray matter or myelitis, which in some instances shows as a transverse condition, and then again of the type of Landry's paralysis a case of which I reported in a discussion of Dr. Tuley's paper on this subject, at the Kentucky State Medical Society's meeting.

Functional distutbances of the heart are quite common owing to the action of the poison upon the heart centers at the base of the brain causing an irregular or unstable pulse. Painful attacks about the heart together with chronic functional disorders are very common as an after effect of this poison.

The vasomoter system is not spared and we frequently find cases of localized and general sweating, forms of erythrema and what has been most common in my experience, a pulsating abdominal aorta, a condition which must be carefuily differentiated from aneurysm. At the present time I have under my care a most interesting case of post-grippal epilepsy that is rapidly reaching normal standard. The mental affection or psychoses belonging to a group of troubles

due to the action of the toxin. The toxin of grippe at times is able of itself to so poison the brain as to influence mental troubles without any hereditary or neurotic involvement. Psychoses vary according to the stage of the disease. During the first part of the acute state the patients are moody, depressed and anxious, this condition being transitory; during the febrile stage we may look for delirium, hallucinations, melancholy or even maniacal conditions, this passing away, as a rule, with a fall of temperature. Post-grippal psychoses occur during convalescence and are due to the effect of the toxins upon the brain substance itself. The physical and mental prostration, the loss of flesh, the poor appetite, the pains, the neuralgias pave the way for the mental condition which may take the type of melancholia or hallucinatory confusional type. These conditions are true psychoses of exhaustion and their prognosis is good.

Grippe may act as a causal factor in precipitating disease—as a fulminate—and in this respect I have seen locomotor ataxia, spastic spinal paralysis, paralysis agitans, exophthalmic goiter, paresis, delirium tremens started up as a result of this infection.

TREATMENT.

From what has gone before it is easy to see the many dangers of this disease and cases of grippe require careful and considerate handling. The ordinary hygiene of the sick room must prevail and in addition the cuspidors should be filled with water in which formaldahyde has been placed. Prevention is oftentimes worth more than a pound of cure and for that reason members of the family and friends should not be allowed to kiss the patient, no matter how much their love and affection may desire to osculate.

The patient should be always provided with an alkaline antiseptic spray with instructions to wash out the nose and throat every two or three hours, thus the first element in the treatment is met by keeping the upper air passages moist and open, the antiseptic destroying the bacillus or preventing its further development. The diet should be liquid and to those who are strong but little should be administered. In elderly people and in those who are weak and delicate it must be administered every three or four hours. I have a very distinct and clear idea concerning the administration of whiskey in conditions of the grippe. I never use it save in cases of heart failure in *elderly* people, and believe that it does more harm than good as the action of alcohol is toxic in character and our aim and object is to eliminate poisons and not add them to the already overburdened system. Three drugs have given me entire satisfaction in the treatment of this disease; phenacetin in five grain doses, together with strychnia 1 60 to 1-30. every three or four hours is the sheet anchor upon which I depend. Quinine in strong cases and in those who are not naturally nervous I sometimes use, but prefer to avoid its use if possible. The third drug that I use is pilocarpin in 1-30 grain doses until sweating is produced. In my sanatorium it is my plan always to treat these cases by hydrotherapy, utilizing the medicinal treatment, and at the same time administering the electric light bath or superheated hot air, followed by tonic bath measures.

In the management of the chronic stage I have practically limited myself to the use of tonics and the administration of the various forms of mechonical measures. There is no question but what at this stage of the trouble that the administration of massage, vibration, electricity and hydrotherapy will bring about an increased activity of reconstruction that will save the patient from many of the uncomfortable after-results. I continue the use of the same kind of hydrotherapy as aboue outlined and add to this the various treatments above enumerated during the 24 hours. Where inflammations of the intestinal tract arise the static wave current has given me great satisfaction. I have gained great confidence in this method of managing these cases, and in conclusion will say that I have never, where this treatment has been followed out and where the patient has been in the Sanatorium under my control, have I had a single serious, or even disagreeable after-effect of the grippe.

Dysentery.

By F. S. Martin, M. D., Beaumont, Texas.

It has often occurred to me, and no doubt to every practitioner, that the methods of treating dysentery as outlined by our textbooks, both old and new, are certainly disappointing in a great many cases. How many times have we stood by the bed side of some patient dying with this disease, and have been powerless to do anything for the sufferer. Indeed, if the patient be a child under two years of oge, in my experience, the condition is alarming from the beginning, but after that the danger gradually lessens according to the age of the patient. But in the cases of the aged, and others weakened by some pre-existing condition or malady, the danger is also great. The textbooks describe the various forms of dysentery accurately and minutely, and call in the microscope to aid in the diagnosis, but in my opinion dysentery is dysentery, whether caused by the Amœba dysenteriæ, or by Shiga's bacillus.

Especially is this true when the cause or

causes of dysentery has not been specifically determined. Some authors are positive that the Amœba coli, or dysenteriæ, causes amœbic dysentery, but the same germ is found in the stools of perfectly healthy individuals, and Shiga's baccillus, when taken into the alimentary canal of a healthy animal, causes no trouble unless the mucus membrane has been previously irritated by chemicals. In cases of this kind, a diagnosis may be made by association. For instance, if dysentery is always found associated with certain germs, then we can be positive of our diagnosis, for it seems that dysentery does not exist without the presence of one of these germs, although the germs exist without producing dysentery. This may be said of the bacillus tuberculosis and others. However, Musgrave of the U. S. Army in the Phillippines, in a recent article, is positive that the form of dysentery prevalent in those islands is due to the Amoeba, and that a germ found in the mouths of healthy individuals could not be distinguished from the pathogenic amoeba. It may be that there are several kinds of amoeba, as Osler claims.

Also, there may be a multitude of other germs, as the presence of any one germ, to my mind, does not explain the existence of so many pathological conditions in the intestinal tract. There must be some lowering of the vitality in such a way as to allow these germs to enter and begin their work—if the germs cause the disease. This may be due to the absence from the intestinal canal of some antiseptic or other preventative of germ life or fermentation.

In this brief paper I shall not attempt to describe the different forms of dysentery, neither will I mention the various remedial measures of treatment. These can be found in any good text-book. In fact, there is nothing so very new that I expect to bring forth. The remedy that I shall speak of is one almost as old as intelligent medicine itself. It is one that has passed through the various phases of medical opinion since the 17th century, and has withstood the various attacks of the most eminent critics, as well as the superlative praises of its most ardent adherents. The remedy is ipecac.

But ipecac, itself, has not been so very popular of late years with the profession in the treatment of dysentery, for the reason that it is not popular with the patients, who generally object so strenuously to the nausea and vomiting that it produces that the remedy has to be abandoned. Indeed, after one trial of the drug, most patients will positively decline to continue the treatment. Notwithstanding these drawbacks it must be conceded that ipecac is a most valuable remedy in epidemic and sporadic dosentery. Bartholow used it with much success in the treatment of acute dysentery and he says: "When the characteristic ipecacuanha stools are produced, the tormina and tenesmus cease and the dejections soon become fecal; the skin previously dry and hot becomes moist and cool, and a refreshing calm is experienced."

How does it do it? I believe that more dysentery is caused by an absence of bile, or diminished amount of bile, from the intestinal canal than from any other cause. It is conceded that bile is an antiseptic to the intestinal canal, and "it may serve to prevent the decomposition of food during the time of its sojourn in the intestines. Experiments show that the contents of the intestines are much more foetid after the common bile-duct has been tied than at other times; moreover, it is found that the mixture of bile with a fermenting fluid stops or spoils the process of fermentation." (Kirk).

This may explain the cause, or one cause, of dysentery as before stated. Now as all authors are agreed that ipecac is a sovereign remedy and specific for the disease, we will attempt to explain why it is so.

"Ipecac is nauseant, emetic, expectorant, cholagogue, diaphoretic, hemostatic, sternutatory, and counter-irritant." (Potter). Also it has a cathartic action in large doses and the stools have a peculiar billious character.

If ipecac in powder form, or other form, is antiseptic, I have not been able to find an authority for it, but this may be true also. Now, since ipecac, by its cholagogue action on the liver, causing it to throw out large quantities of bile—so much so that the stools are billious in character, and as bile is an intestinal antiseptic and prevents fermentation, is not it reasonable to suppose that this is the manner in which ipecac cures dysentery?

If ipecac cures dysentery by its cholagogue action, then other cholagogues should do the same thing, and they may, but I have had no experience with any of them. As I said before, ipecac has not been very popular with the profession on account of its nauseant and emetic properties. If we can devise a method of administration so as to do away with the emesis and nausea, and at the same time retain its cholagogue effect, then may be truly we have found an ideal specific for dysentery.

About two years ago I read in a medical journal of a method of administering ipecac by an army surgeon (whose name and that of the journal, I cannot now recall) and so far as I know he is the first to suggest the method.

He made pills of ipecac and coated them

with salol, so that they would pass the stomach unchanged; thereby preventing the nausea and vomiting. He dissolved the salol in ether, then immersed the pill in the solution, then removing it and allowing the ether to evaporate, leaving the salol coating on the pill. This process was repeated until the pill had a sufficiently thick coating. I tried this method thoroughly, and found it to be a very unsatisfactory way to coat them. I never could get the coating to stay on, as it was so granular and brittle that it would break and crumble away. I caused the usual nausea and vomiting by administering ipecac cooted in that manner, proving that the coating came off in the stomach. Hence this method was abandoned and in its stead the following was adopted: Heat the salol in a dish over an alcohol lamp until it liquefies, then immerse an ordinary gelatin capsule filled with ipecac of the required dose—usually four or five grains—in the liquid salol. Then remove the capsule and the salol hardens instantly, forming a perfeetly hard and permanent coating. This process must be repeated several times before the capsule has the required thickness of coating. I have given capsules coated as above and they caused absolutely no nausea or vomiting, and thereby getting the specific action of the ipecac on the disease. This is a magnificent test of salol, and the assertions of the authors of the materia medica that salol passes the stomach unchanged, are absolutely correct.

In addition to getting the beneficial action of the ipecac, we get the combined action of ipecac and salol—the latter, one of the best intestinal antiseptics. If this paper was not already too long, I would report five cases treated in the above manner. However, suffice it to say, they all recovered and in a magically short time. One of these cases was of a years standing and yielded immediately to the ipecac treatment. Of course, the result obtained in five cases does not prove much, yet the effect obtained in these cases surpasses that of any other method employed by me.

"Much of the abundant literature about the use of ipecac is valueless because of the lack of sufficient clearness as to the type of the disease referred to by the writers who advocate the drug. Whatever may be the value in certain other forms of dysentery, it is quite certain that when given in the doses, and, in the manner, prescribed by its most ardent adherents, it is not only useless, but may be dangerous in amebic infections of long standing. In small doses. it undoubtedly acts as a tonic to mucus surfaces, if nothing more, and as such, often may be administered with advantage in intestinal flux. In emaciated patients who have had the disease for a long time, and when given in the large doses which are usually recommended, its results are sometimes disastrous. I have seen three cases (with postmortem) in which, in my opinion, it was the immediate cause of death. These were patients who should have remained alive for weeks, unless complications had developed, and one of them might have recovered under more rational therapy." (Musgrave in A. M. A. Journal, April 8th, 1905).

From the above, we may infer that the ipecac was given in too large doses. I have never found it necessary to give more than five grains at a dose, and this may be repeated twice daily, or more. The large doses—twenty to sixty grains advocated by most of the authors, I believe to be unnecessary and harmful. I generally begin with four grains and increase it to five, later on. It seems that the writers claim that one dose of twenty to sixty grains is sufficient to effect a cure—it not being necessary to repeat it. But I believe a dose of five grains repeated according to its laxative effect on the bowels is the most rational manner of giving the drug. The cathartic action from these large doses is sometimes very severe, and I believe that those who have had such splendid success with large doses must have given it in the beginning of the disease, as a patient who had become weakened by several days duration of the disease, certainly was not able to withstand the active purgation that would occur from the administration of such large doses.

However, the remedy may not be of any value whatever in the amebic form, as I do not know whether the five cases I treated were of that variety or not, as no microscopical examination was made. But I am of the opinion that some, if not all of them, were of that kind, as the amebic is, according to Osler, the most prevalent form in this country.

One of these cases, of a years standing. as before stated, had resisted all manner of treatment before the ipecac was added. The improvement was magical from the start, and the ipecac was given continuously for several weeks, in doses of five grains, twice or thrice daily.

Of course, other treatment can be carried out at the same time, and is not contraindicated when ipecac is being given. In the one case of a years standing, high colonic irrigations were used for quite a while, but no visible improvement occurred until the ipecac was begun. These irrigations were intensely painful—so much so that the patient reluctantly consented to their use. Some relief was afforded by rectal suppositories of cocaine, opium and tannic

acid, but this was only temporary. In those cases where there was a tendency to constipation, ipecac simply worked wonders.

It occurs to me that ipecac should be good in amebiasis, as the remedy originated in Brazil, and if there is any place on earth where tropical dysentery prevails, it is certainly in South America. There can be no question as to the fact that amebiasis exists in that country, whether it has been demonstrated microscopically or not. The amoeba coli is not such a new germ anyway, as it was first noted by Lambl in 1859, but its specific action in dysentery was not known until Kartulis discovered the fact in an epidemic in Egypt in 1883.

I have been using the salol-ipecac-capsule in dysentery for about one year and a great problem has been with me, and is yet, how to give ipecac to small children. They are too young to swallow the capsules, and I must confess that I do not know of any way, unless it is possible to introduce a small coated capsule, or pill, into the stomach through the stomach tube. It seems that they might be washed intothe stomach with a small amount of water, I have never tried this method, and only suggest it for what it is worth.

This brings to mind another interesting item, and that is the treatment of typhoid fever, if you will pardon the digression. Why can we not introduce any intestinal antiseptic directly into the intestines with the aid of this salol coating? Sodium salicylate, carbolic acid, turpentine, menthol, etc., can be easily enclosed in a salol-coated-capsule and introduced into the intestines without disturbing the stomach and go directly to work on the ulcerated glands therein. I have not tried this method, but maybe some practitioner will, and report the results.

Irrigating the entire colon from the caput coli through the appendix vermiformis as first suggested by Weir of New York, seems to be a rational procedure. The operation has been done a number of times by Arthur of Washington, D. C., with splendid results. Of course, an operation of that nature would be advised in those cases only which had resisted all other methods of treatment and had become quite chronic. The operation is similar in part to that of an appendicitis operation. If the appendix is not adherent, the same is brought out through the abdominal wound and stitched to the skin.

In about forty-eight hours, the protruding part of the appendix is cut off; a catheter inserted, and the entire colon is irrigated with quinine solution, 1-2000, or other antiseptic solutions, such as silver nitrate ¼ per cent., etc.

In case the appendix is bound down by adhesions, the cecum is stitched into the abdominal wound and in about forty-eight hours, is opened, a catheter introduced and irrigation begun. Chronic cases treated as above, improved rapidly, and some were cured permanently. It will be difficult to gain the consent of patients and relatives to the treatment of dysentery in the above manner in private practice. Arthur has an excellent article in the "New York Medical Record" of March 25th, 1905, on this subject.

In the "Druggist Circular and Chemical Gazette" of February, 1905, I find the following explicit instructions for coating pills with salol: "To coat pills with salol, place just enough salol in a four ounce evaporating dish, to almost but not quite immerse the pills to be coated, after it has been melted on a water bath. This is about one grain of salol to each three grains of pill. After the salol is fused, it is allowed to cool, until the bottom of the dish no longer feels warm to the hand, that is to say, until it is almost ready to congeal. The pills are then put in and the dish rapidly rotated. This gives the pills their foundation coat. The pills being removed, about the same amount of salol as before, is placed in the dish and fused, but is not allowed to become quite as cool as before. The pills are then turned in and rapidly rotated until coated and the salol has cooled. This procedure is again repeated, with a little less salol. The final coating is applied by melting in the evaporating dish two or three grains of salol for each twenty 3-grain pills, and while the salol is quite warm, putting in the pills and rotating them rapidly for a moment, then turning them into another dish and discontinuing the rotation until the pills are cool. Unless great care is exercised in regulating this final coating, the previous coatings may be melted off."

"The Therapeutic Indications of Ergot Other Than Obstetrical."*

By J. Will McCanless, M.D., Chesterfield, S. C.

Mr. Chairman:—I shall not enter into the discussion of the modus operandi of the manufacture of the different preparations of ergot, nor shall I mention the places, that each preparation of that pharmaceutical, should occupy in the materia medica, but confine myself to the therapeutical application of the different preparations of that drug to the many pathological conditions in which they may be applied.

When you have a patient suffering from hematuria, if you will combine fl. ext.

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ergot with Sanmetto, adding heroin, or papine for the pain your patient's urine will clear up, hemorrhage cease, and inflammation disappear at once. The hemostatic action of the ergot, combined with the bland and sedative action of the Sanmetto give us the desired results.

Where there is a constant desire to go to stool, with tenesmus, with no discharge, but a bloody and muco-purulent excretion. Fl. ext. ergot alone will lessen the inflammation and discharge, but when combined with some antiseptic, like euthymol, glycothymoline or listerine and tinct. opii for pain, and you have a prescription almost a specific for dysentery. Fl. ext. ergot added to a sedative expectorant, acts like a charm in any case of pulmonary congestion and minimizes, to a certainty, the inflammatory condition. In bronchitis and in pneumonia it not only lessens congestion, but acts as an antipyretic. Fl. ext. ergot combined with the nit. argenti. lessens the tendency to cerebral hemorrhage and aborts the most aggravated symptoms of locomotor ataxia.

In a diabetic, whose urine registered 1035 by the urinometer, fl. ext. ergot with tinct. nux vom. was administered, and by the combined effect of both tonic and astringent, the aggravated symptoms disappeared. In this diabetic condition, however, if celerina be added to above prescription of tinct. nux vom. and ergot, the glycogenic function of the liver is more readily re-established by allaying the nervous phenomena incident to indigestion, which brings about this diabetic condition as a secondary sequence. And furthermore, by its employment (celerina) in this connection or prescription, rest and sleep are brought about in a purely physiological way, and the whole nervous system toned down, so that the normal functions of the different organs are thereby re-established.

The patient, in this diabetic condition was, as a matter of course, constipated, and besides the action of ergot we wanted something that would not only act as a gentle laxative, but also as a gently stimulating hepatic tonic, and we found nothing to answer the purpose like chionia. It brings about a healthy proliferation of the hepatic cells, allaying all irritation, and acting as a gentle laxative, assisting nature to re-establish this all important glycogenic function of the liver.

In enteric fever, threatened with hemorrhage, fl. ext. ergot combined with acetozone, acts like magic. In this, we have not only the antiseptic property of acetozone, but the antipyretic, prophylactic and haemotic action of ergot which lessens the congestion, thereby relieving the local and general pyrexia.

I was called upon, by a young man, who thought that he was suffering from stricture —not knowing how that trouble worked— but from the objective and subjective symptoms the case was diagnosed hæmorrhoids. I worked on that fellow for nearly two months, and finally the piles became an abscess which ultimately resulted in a fistulous track. Fl. ext. ergot with tinct. ferri. chlor. was administered locally and perorem and the fistulous tract healed, without further operation. The solid ext. ergot has proven very efficacious, in fissures of both rectum and mouth, by combining it with ext. opii, tomin and coca butter, and using as a salve or making into suppositories, or this same formula may be used in the form of a paste, by adding ococia and petroleum qs. to moisten and prescribed in boils and ulcers.

In irritation of the prostate gland, in old people, fl. ext. ergot with elix. buch junip and pot. or Sanmetto has proven very efficacious

In the tortuous course of varicose veins in the aged, where the veins stand out like whipchords, with here and there a knot, fl. ext. ergot—alone—given internally, brings tone to the venal walls, thereby causing a contraction of the small muscular fibre from which we have an amelioration of the aggravated symptoms.

In seborrhœa the oil of ergot combined with hamamelis and witch hazel, is almost a specific, and if you take fl. ext. ergot, camphor water and ext. pinus canadensis, equal parts, and keep the scalp moist with this, dandruff and the loss of hair will be checked, because it acts as an astringent tonic to the hair follicles.

Take the oil of ergot, lanolin, and oil of roses, equal parts, with enough morph. sulph. to suit the quantity of the former ingredients used, and you have a fine formula for sycosis menti.

It gives tone to the hair follicles, inhibits the inflammatory process, and stops the intense pruritus, thereby inhancing true, physiological healing.

Fl. ext. ergot, aromat. sulp. acid, quin. sulp., tinct. nux vom. and simple syr. grs. is an unfailing prescription for night-sweats. Here we have the tonic effect of both quin. and nux vom. combined with the capillary contractive influence of the ergot which inhibits the weakening effects of night-sweats. Ergot, alone, is good in this condition, also in excessive milk-flow (gallactorrhœa) in fact, in any condition, where there is congestion, whether the congestion be superinduced by an excess of blood to the part, or by the excessive flow of any other fluid of the body, whether the congestion be induced by a hypersecretion of serum as hy-

drocele or even pleuritis, or in anasarca, the fl. ext. ergot has exhibited a marked beneficial effect. You may have congestion, by an excess of serum to a part, or blood, or even milk in the female, accompanied either by inflammation or not, and in any of these conditions, whether inflammatory or not, ergot will do its duty.

We may take even the active principle of ergot, ergotinine, or its liquid, ergotole, and use it, with benefit and satisfaction, to both patient and physician, in the active and passive congestions of the womb, in paresis, in cerebral hyperæmia, in the coma following an apoplectic attack and in the chronic engorgements of the uterine viscus, relieving to a certainty, and to a marked degree, such troubles as leucorrhœa and even dysmenorrhœa, when this alkaloid or ergotole is prescribed as an adjurant with stych. sulph. and aletris cordial.

By using the ergotole it may be employed hypodermically, giving the patient sure and quick results, with no residue, because the whole force and effect of the drug would be taken up in the circulation, directly, giving quicker and more effective results than if the less inferior preparations had been employed. Then, in this combination, with strych. and aletris cordial, you have the tonic effect of both the strych. and the aletris, giving better results than if employed separately.

In incontinence of urine, in children, ergot with Sanmetto gives the happiest results. Here we have the capillary contractive influence of the ergot which causes the renal vesssels to recoil, inhibiting the urinary secretion, added to the blandly sedative action of the Sanmetto, which, acting synergistically to the ergot, relieves the over-congested urinary apparatus, thereby relieving the urinary incontinence. In the different fibroid growths of the uterus, in gastric atony, and even in the dilitation of that organ (gastritectosis) ergotinine or ergotole has wrought the happiest results by causing a contraction of the peripheral and local fibres, inducing the stomach to resume its former physiological status, while in the uterine fibroids it causes an atrophy of the neoplasm by arresting or inhibiting its development.

In diarrhœa, as well as dysentery, ergot arrests the congestion, thereby stopping the bloody and muco-purulent discharge. If, however, it be combined with some antiseptic, as formalid or listerine or glycothymoline, and an anodyne as papine or heroin and the formula is complete.

Here we have the healing properties as well as antiseptic effect of the glycothymoline or listerine or formalid, and with the pain relieving properties of the heroin or papine the prescription cannot be improved. The heroin acts as a sedative also, and then it does not constipate the patient so bad as the other preparations of opium, causing part of the poison that ought to pass off in these bowel congestions to be absorbed again, as do some other opium preparations.

For the same reason that ergot is prescribed in fibroids of the womb, we may safely employ it in goiter.

In prostatorrhœa, blennorrhœa, and in the many aches and pains caused by congestion, ergot may be safely prescribed, and even in paralysis of the bladder, when all the regular tonics have failed, ergot will come to your rescue.

In mammitis and orchitis the topical application of oil of ergot, while the fl. ext. be given internally, the congestion is relieved, thereby relieving the inflammation of the testes and inhibiting the milk supply in mammitis and lessening congestion by causing a sympathetic recoil of the capillary circulation. Again, in the nervous phenomena, incident to abortion, fl. ext. ergot with the combined effect of aletris cordial and celerina carries our patient through this dreaded period.

You not only have the tonic properties of aletris cordial upon the uterine viscus, toning up the womb and bringing about a physiological status, like no other uterine tonic, but the nervous symptoms are allayed by the sedative and quieting action of celerina, and when these are prescribed in conjunction with fl. ext. ergot as a haemostatic we have a perfect prescription for abortion.

In urethritis, both specific and non specific, ergot lessens the hyperæmic condition by causing a contraction of the arterioles, thereby inhibiting congestion and combined with Sanmetto, we have a mild sedative and antiphlogistic diuretic, which soon brings our patient around alright. There are certain nervous phenomena associated with nearly all pathological conditions where there is hyperæmia and active congestion and in any of these morbid states in which ergot may be successfully employed. Celerina comes in as an almost indispensable adjuvant. We have long learned, in anatomy, that the back is made up chiefly of a bundle of nerves, most of them eminating and branching off from the brain and spinal chord.

Now, in all congestions of the chord and of the base of the brain, associated with cerebral hyperæmia, ergot may be successfully employed and in the nervous condition incident to meningitis, ergot combined with the syr. brom. comp. (Peacock) will restore quiet to the shattered nervous sys-

tem and abort the inflammatory onset of this dread malady.

In menorrhagia or metrorrhagia, ergot acts well, but if used in conjunction with Peacock's bromides, celerina and aletris cordial, we have a prescription second to none. In these troubles, the cephalgia and nervous condition are thwarted by the celerina and bromides, and the uterus is relieved of its engorgement, by the combined effect of both ergot and the bromides, while the tonic and sedative influence of aletris brings the sufferer around alright.

Try these different preparations of ergot in the many pathological conditions, gentlemen, and be convinced.

Non Operative Treatment for Retro-Displacements of the Uterus. *

By W. P. McAdory, A. B., M.D., Birmingham, Alabama.

In this discussion I shall confine myself to the treatment of the acquired displacements, including retroversion and retroflexion under the term retrodisplacements.

When we speak of the operative treatment for uterine retrodisplacements, it is usually understood that we have reference to some of the fifty or more methods of holding it forward by shortening the round ligaments, attaching the fundus to the anterior abdominal wall, or anterior vaginal wall. By the subject, non-operative treatment: I mean the treatment of these conditions without any of the above operative procedures. In the short time given for this paper, I will not go into the causes and symptoms of the condition, except as I shall refer to them in the discussion of the treatment.

In reviewing the literature on this subject of the treatment of retrodisplacement of the uterus, it has been interesting to me to note that at one time the dislocation was given credit for the production of all of the symptoms, and in a few years, the pendulum of expert opinion would have swung to the other extreme and the complications held responsible for the symptom; again, the pendulum would return to its former extreme, etc. Thus, the ideas as to the cause of the symptoms and consequently as to the treatment, has been vascillating back and forth until at the present time I believe the dislocation is considered the chief pathological condition, and the treatment most frequently recommended is drawing the uterus forward without due regard to the complications that exist, and the general condition and habits of the patient, with the result that with practically every operator trying to invent a new operative procedure, and the attempt to treat all of these cases as a class, with one method of treatment, having frequent failures and resulting complications, we are in almost a constant controversy as to the best methods of treatment and judging the future by the past it is but a short time when the pendulum will again start in the opposite direction.

The uterus is a freely movable organ, whose position in the pelvis is constantly changing—and any method of treatment that fixes it in any position is wrong. In fact, the object of any method of treatment which has ever proven successful is first, remove the cause, and existing complication, afterward, hold the uterus forward in as near the normal position as possible, until the normal supports of the uterus can regain their tone and properly perform their function. That we can accomplish this frequently without any of the above operative procedures, I am thoroughly convinced.

The most important non-operative method of treatment is the preventive treatment. It is claimed that the cause for the retrodisplacement of the uterus in women who have not borne children, is most frequently lack of hygienic care as to the condition of bowels and bladder. Constipation, with the resulting pressure upon the pelvic contents by a full rectum, and the severe straining at stool, together with the full bladder is frequently the cause of beginning retrodisplacement, and I believe is frequently the cause of the so-called congenital displacements and mal-formations. Again, the most frequent cause of this condition in women who have had children or abortions or injuries incident to child-birth and abortion, such as lacerations of pelvic flow, cervix, or subinvolution. The preventive treatment in the first class of cases is really hygenic and should be begun in girlhood. Here the family physician should really play the role of preventive gynecologist. By carefully instructing the mothers as to what is best for the children. They should be encouraged to empty the bladder as frequently as the desire is felt, and not put it off from time to time, until the bladder becomes very much distended. They should be instructed as to the importance of having one healthy movement from the bowels daily, and if constipation already exists the bowels should be thoroughly cleansed by free catharsis to begin with, and then by using a copious amount of water, fruit and vegetable diet, with habit, will usually correct the trouble. These cases are often obstinate, and frequently catharsis is necessary for a considerable period of time, and I find cascara segrada works best

* Read before the Medical Association of the State of Alabama, April 19; 1905.

in my hands when this is necessary; but I believe it is especially important to insist upon the importance of habit, and the injurious effects of the cathartic habit. Another important hygenic measure is the proper attention to exercise and rest. This is especially important in nervous women and children. Those who have too much work or take too much and improper exercise should be instructed as to the rest necessary. Those who do not take enough, especially outdoor exercise—this should be insisted upon. It is frequently best with young girls who are of a nervous disposition that they be taken from school and required to stay outdoors as much as possible. These hygenic measures are important as we all know, and it is simply to call attention to them as preventive measures, and insist upon the necessity of their being carried out as an important part in any method of treatment for the condition when it already exists.

The second class are those women who have borne children, the preventive treatment is the proper care of the woman at and after childbirth. Before the days of operations for a woman to become pregnant was considered the surest way for her to be relieved of her retro displacements, because of the fact that if the proper care was taken the uterus in undergoing involution along with its supports, the chances were good for recovery. and now all text-books tell us that abnormal conditions following childbirth and abortion are the most frequent causes. By cleanliness, properly repairing perineum and cervix at the time of birth, and care to attend to the involution of the uterus by instruction as to the importance of not lying on the back too much during the puerperum will usually prevent the condition; and a careful examination as to the size and position of the uterus before the woman is allowed to get up is essential, and if the uterus is not undergoing involution rapidly enough, or if there is a tendency to retro-displacement, tamponing the vagina after the uterus has been replaced, the woman in the knee-chest position, with cotton tampon, moistened with glycerine or ichthyol and glycerine, instructing the woman to lye in the Sims position as much as possible, and to assume the knee-chest position three or four times a day and remain in this position for ten minutes each time, removing the tampons every other day, use hot douche after removal, replacing the tampon; in this way involution can be assisted and the weight of the uterus held off the supports so that they can at the same time undergo proper involution. I sometimes keep a woman in bed three and sometimes four weeks, and would keep her in bed longer if necessary in order for the uterus to come down properly, and the cases that have had retro-displacement before the pregnancy, I support with tampon for two or three weeks after they are up.

What about the non-operative treatment for cases that already exist. There are a great many women who have the dislocated uterus and suffer no inconvenience, and in my opinion require no treatment, and those cases that do present symptoms that require relief, practically each one requires a different method of procedure, but the main principles of the non-operative method, are briefly: Replacing the uterus, and maintain it in the normal position with tampons or pessary, or if the case presents complications, remove the complications first, and then replace and maintain position of the uterus. My personal experience with pessaries has been nothing, and when I can get the consent of the patient, in a case that requires support for so long a time that a pessary is required, I insist upon operating. But those cases who refuse operation the pessary gives relief at times, and I hope some one who has had experience will discuss this side of the question. To replace a non adherent retro-displaced uterus, I have found that I can get the best results by placing patient in the knee-chest position and retract the posteria vaginal wall; with the ballooning of the vagina, and falling downward of the abdominal contents, the uterus will frequently fall back in normal position. If it does not, I then press forward on the fundus with finger or firm ball of cotton held in dressing forceps, and if this does not work I then pull down on the cervix at the same time pushing forward on the fundus, sometimes it is necessary to give patient an anæsthetic in order to replace the uterus. After the reposition, if the patient is in the knee-chest position I have her lie on her back and examine carefully to determine the new position of the uterus. If in proper position I place patient again in knee-chest position, and with posteria wall of vagina retracted, I support the uterus with tampon of cotton or lambs wool, my experience has been that several small tampons carefully placed work better than two or three large ones. The first tampons which are usually moistened with ichthyol and glycerine are placed in the vault of the vagina, which is practically filled, then one or two are placed in front of the cervix. The woman is then instructed to lie in Sims' position as much as possible, and to assume knee-chest position three or four times each day. The tampons are left in for forty-eight hours, when they are removed and a hot douche given; this, to do all that it should, must be as hot as the pa-

tient can bear, allowing the water to run slowly so that at least twenty minutes are consumed in giving the douche. This aids in relieving the congestion that exists in most of these cases. After the second or third treatment, allow the tampons to remain out all night, giving careful instruction that patient is not to sit up but remain lying down preferably on her side or stomach. I usually keep them in bed about two weeks, and have them wear the tampons about one month after they are allowed up, and then for a week after each menstrual period for three or four months, and if necessary, keep them in bed during menstrual periods.

This with proper care as to the hygenic condition of the patient will usually cure the acute cases, and they are not kept in bed longer than is required by the injury that produced the dislocation. The fact that these acute cases can usually be so easily cured, and the trouble given by the chronic cases should cause every physician to determine the true condition when acute retro-displacement are suspected, and institute treatment at once. The chronic cases that present only an enlarged boggy uterus as a complication, should have this treatment for a week or ten days before operative interferences. The non-operative treatment is not sufficient to cure on account of the length of time it is necessary for the uterus to be artificially supported, but frequently on account of the fact that these patients refuse operation and on account of the danger unless the operator is properly experienced and in good surroundings, I mention this treatment of these chronic cases as a means of giving at least temporary relief from the symptoms, and if the woman should become pregnant in the meantime, if proper care is taken at childbirth, she may be relieved; also to insist upon the importance of using these means af a preliminary treatment for the operation. Every one here who has tried this method has seen cases where the uterus has been reduced in weight at least one-third or one half by the application for three to six days, and a woman is then in better condition for the operation. In these chronic uncomplicated cases, unless, there was some mark contra-indication, I would not expect to gain anything except reduction of weight, etc., by the non-operative treatment, and would not follow it more than a week or ten days, and if the symptoms had been relieved by the uterus being held in place, I would then operate, using the method that I thought best.

As is frequently the case, the existing complications are really the cause of the retro-displacement, such as relaxed or torn perenei, a lacerated inflamed cervix with endometritis, one or all of these complications may exist, and when they do, they should first be relieved by the proper operative procedure, and at the sametime the uterus put up in the normal position. Frequently, as soon as the patient has recovered from these operations, she will be relieved of her symptoms and require no further treatment, for in relieving these complications, we have removed the cause and the patient is cured or if the retro-displacement exists, give no symptoms. All who have tried this know the truth of the statement, so I must insist upon the injustice of doing all of these operations at the same sitting, for if the uterus does have to be drawn forward by a special operation, it is best to allow the perineum cervix and endometrium to get in a normal condition before performing the operation. Those cases where a replacement cannot be accomplished on account of tumors or adhesions, and those cases that are complicated by diseased adnexa, require an altogether different line of treatment. These are complications that require opening into the peritoneal cavity and at the same time it is best to do the operation for the retro-displacement.

My time will not permit me to report cases, and my reasons for presenting this paper are not to bring out something new, or create the impression that I am opposed to the operative treatment for retro-displacement of the uterus, or to bring out an elaborate discussion as to the best methods of operative procedure; but to enter a protest against the practice of considering every woman who has a retro-displacement of the uterus whether accompanied by symptoms or not is a subject for operation, that frequently the proper attention to the complications whether the cause or the result of the dislocation will relieve the symptoms and need no further treatment, the importance of the care of women at and after childbirth in preventing the condition, and even relieving it if it already exists, and especially our duty as the family physician to see that the mothers at least have the proper instruction as to what is best in order that the daughters may develop properly; that these cases cannot be treated as a class with any one method of treatment, but that each case must have careful study as to the cause and existing condition, and the treatment applied that will best fit the case. Any one method followed in all cases will be a failure in some whether it be operative or not.

Obstetrical Practice in the Country.

By Geo. Harwood, M. D., Johnson City, Texas.

In writing upon this subject it must be understood that this article does not proceed from the pen of one who sits in a town office and gives his views upon obstetrics in general based upon a city experience, where nurses, consultants, and up-to-date armamentaria are within easy reach, but upon a country experience solely, comprising 15 years practice and a radius of at least 40 miles in a sparsely settled country of about 1500 families, and an average of from 40 to 50 cases yearly, a sufficient basis on which to found a few facts and ideas.

The country practitioner who has a fair yearly average of obstetrical cases for ten years is the equal of most and superior to some of his city brethren, from the fact that, though he may not see so many cases in the aggregate during the same time, he is thrown upon his own resources entirely in the great majority of his cases, consultants and nurses being few and far between and often far away.

The city man may possibly be more of an adept with the special instruments needed in abnormal cases for the reason that, it is a well recognized fact that there is a greater average of such abnormal cases in large cities than in the country, due to mode of life and environments of the patients, and again there are generally men in the cities who make obstetrics a specialty, who are always at hand to be consulted in such cases, and from such the city practitioner may have opportunities to become more expert in the use of instruments and more up-to-date in the procedures in desperate cases; besides which cities have their maternity hospital to which such cases are frequently moved and the attending physician may there accustom himself to every and all procedures undertaken in abnormal cases; on the other hand, the country physician meets with all kinds of cases, and in the great majority comes out successful without help.

There is no class of cases with which a physician has to deal which require such a versatile knowledge, such self-reliance, so much firmness, and at the same time gentleness, so much patience at one time and celerity of action at another, such power of encouragement, so much sympathy, so much tact from the moment one is called to attend such cases until they can be safely left, as parturition cases, be they normal or abnormal.

It is here that the country physician is seen at his best or his worst, it is here that his self-reliance and experience are shown and where his knowledge and skill come into play.

In nearly every case there are two conditions at stake; firstly, the watching and helping of his patients to a safe conclusion of the act of parturition in all of its states; and it must be remembered that this does not begin with the first stage of labour nor end with the third stage, it begins as soon as he is engaged and ends only when his patient has reached that state of health in which she was before becoming pregnant; secondly, his reputation which hangs on his conduct of each case.

Surrounded as the country physician frequently is by the neighborhood grannies and one or more neighbors of the patient who at some future time may need his services, watched closely and sometimes suspiciously, the least ontoward occurrence, especially if such occurrence be not foreseen by him and prepared for, is told and repeated to and by the little world of women around him with disastrous results to him; he may have made a reputation in labour cases, but one slip made and all this is swept away, but slowly to return, if ever.

The duties of the obstetrician begin in each case at the time he is engaged to attend such case and a little care and foresight, before the time for parturition, may save many difficulties afterwards; therefore, it should be the aim of each physician to endeavor to impress on his patrons the great advantage of engaging him some months before the expected time of birth.

As our best text-books describe the management of pregnancy, it would be a useless repetition to describe the several procedures practiced by physicians during that stage, up to the time of parturition, to procure, if possible, a normal condition at the time of childbirth, in this article; suffice it to say that it is always possible, even in the country, to occasionally test the urine of pregnant patients, have the husband bring or send some of it at intervals, give your patient a few simple rules to live up to if you are able to see her; if not, write them down and send them to her. such simple rules as bear on the management of the bowels, exercise and diet, as will appeal to any sensible patient, later on supply abdominal supporter if necessary, or cut out and send a pattern of one to be made at home and describe how it should be put on and when; such matters, small though they seem, tend to the safety of the woman and at the same time enhance your reputation for carefulness.

When called to attend your patient do not delay in responding to the call and go in as cleanly attire as possible under the circumstances, a 20-mile ride over a muddy road in the rain is not conducive to a neat and cleanly appearance on the part of the

attending physician, but a slight mention of these conditions will set you straight with the family and patient. Probably nothing is so abhorent to a woman about to be confined as the appearance of a slovenly dressed and grimy handed doctor.

If there is time see that the bed is properly fixed; every doctor ought to know how to do this, if any do not, learn; do not rush to examine the patient, but, if from watching the woman you are sure that labour is not far advanced, engage the patient in an encouraging conversation, calming any nervousness which your appearance may have produced. Explain to her what it is necessary for you to do in a gentle but firm way, look around and see that things are as you need them, get acquainted with the others in the room, then disinfect and quietly but thoroughly examine; meanwhile encouraging the patient to bear with the procedure and give you plenty of time to make a thorough first examination, and bear in mind that this first examination should be very thorough, not only should the condition of the neck of the womb, and if possible, the position of the fœtus be found out, but the bladder and rectum should be palpated and the presence of any discharge. be it blood or other material, should be recognized, and then according to what you have discovered at this examination you will know how to proceed as regards attending to any condition which may present itself at this time; if necessary, empty bladder or rectum, or both, use an antiseptic douche or tampon.

Having attended to these matters set yourself to watch the progress of the labour, do not leave the woman if you are sure that your services will be needed in a reasonable time and above all do not say too much or guess too much from the first examination, for in nine cases out of ten you do not know half of what will probably be asked you by the anxious or inquisitive attendants; encourage your patient, do not examine often, have your chloroform handy, and if nothing abnormal intervenes during the progress of labour have patience, generally try to be doing something, if even so little, which will tend to make a comfortless condition more bearable, see that the feet are kept warm, be teaching the woman how to help herself, have the pillows rearranged as they get too low or too high. These little things are a wonderful help to your patient.

The commencement, progress and completion of a case of labour would not be a great tax on the alertness and energy of the physician, were it possible for him to prognostiate with certainty as to the outcome of the case from the first, but this is impossible; therefore, watchfulness in all cases should be his duty.

Which of us know that a normal commencement of labour will not at some stage show symptoms of some abnormality, uterine inertia, hemorrhage or adherent placenta may at any time appear to complicate the case, and it is for these conditions that watchfulness is needed and a quick recognition and skill and celerity to overcome them is demanded of the attendant.

Many times you will be asked by the patient or others present to give an idea as to when labour will terminate, but never hazard a guess, as, with the foregoing conditions possible in every case you cannot do so and a simple statement of "don't know" with a little explanation of why you do not know will quiet the anxious questioners better than evasive answers which will call for more queries and finally leave the impression with them that such answers proceed from an ignorance on the part of the physician which is unpardonable instead of unavoidable.

It is not my intention in this article to discuss the treatment of the several varieties and conditions and treatment of dystocia, our text-books fully treat of these. Suffice it to say that the same watchfulness, sympathy and skill are needed in the after-treatment of all classes of cases as during the time of parturition, until the patient has regained the normal condition of health, and in this after treatment do not forget that there are two instead of only one individuals to attend—mother and baby.

In conclusion let me say that the obstetrician, unlike the poet, is made, not born, and the best plan for the making of one is country practice.

Adenoma. With Report of a Case.*

By. W. P. Whittington, M.D., Asheville, N. C.

Adenoma is a benign epithelial tumor, resembling in structure the glandular tissue of the organ in which the tumor is located, or from which it arises. This class of tumor has its basement membrane on the outside of the parenchyma of the tumor. Adenoma, as its name implies, is strictly a gland tumor, and must not be confounded with the swelling of glands due to struma or infection.

Adenoma, strictly speaking, should be limited to those tumors containing adenomatous tissue, produced from a tumor matrix, independent of pre-existing grandular tissue. The cells of these tumors resemble the type of cells of the gland, or duct, in which they are located. Adenoma some-

*Read before Buncombe County Medical Society, February, 1905.

times arises from the accessory glands which are found outside of, but in the vicinity of nearly all the glandular organs. They are most commonly found in the uterus and its appendages, the breast, the thyroid, and the prostate glands; less frequently in the liver, kidney, parotid, submaxillary, and other glandular organs.

Adenomata of the pelvic organs are usually encysted and sometimes attain enormous size. In the thyroid they may also become very large. They never metastate, and rarely cause trouble, except by their size or by pressure on vital organs. An adenoma of the thyroid of small size may, by its peculiar shape, cause dangerous and even fatal pressure on the trachea. Adenomata may become malignant and assume the characters of carcinoma or sarcoma.

Owing to the fact that adenomata are useless and troublesome appendages, and that they may do harm by their size, pressure or malignancy, they should be removed by the knife when this is possible without interfering with the functions of the glands from which they arise, or where the operation would be so extensive as to involve other vital organs. Adenomata of the thyroid should not be removed by the knife unless they are encysted, and in these cases as much of the gland should be left as possible; because the total removal of the thyroid is very often followed by an undesirable myxedema and cretinism. If the tumor should become malignant, as it often does when arising from the thyroid, it should of course be removed as thoroughly as possible.

The most advisable treatment of adenoma of the thyroid, especially if seen early, is the internal and external use of iodine in such quantities as will get its early physiological effects. The treatment by electricity by means of faradism, cataphoresis and the x-ray may also be used to advantage. Massage is also very beneficial. Injections of a five percent solution of carbolic acid repeated once or twice a week has been used by Professor Gunn, with good results. Adenomata of the liver are not common, but are occasionally met with, and may be successfully removed by enucleation, The same may be said for the kidney and testes.

The case I wish to report, a photograph of which I show you, is interesting more for its rarity than from a surgical point of view. 1st. A tumor of this size rarely develops from the sub-maxillary gland; and secondly, in these days of advanced surgery and numerous surgeons, it is a wonder that any tumor on the outside of the body should be suffered to reach such dimensions. This is an adenoma of the right sub-maxillary gland, and weighed (three hours after removal) thirteen pounds. It was seventeen

inches around the pedicle, twenty seven inches around the smallest circumference, and thirty-two inches around the largest circumference. The patient carried it suspended in a large bandanna handkerchief

tied around the neck, and when sitting, supported it on her hand, arm, a table, or anything which happened to be convenient. The patient at the time of removal

was fifty-one years old and in fairly good health. She was drawn forward by the great weight of the tumor, and had an expression of pain and anxiety. The tumor began as a small nodule over the submaxillary gland, seventeen years ago. The increase was gradual until about three years ago, since which time the growth has been more rapid, until it had reached the present dimensions.

With the assistance of Drs. McBrayer, Glenn and Orr, at the Asheville Hospital, I removed the tumor July, 1904. The tumor seemed to involve the entire submaxillary gland, was encapsulated and well supplied with blood, the main artery being as large as a lead pencil. The tumor had pushed the platysmamyoides muscle forward, and spread it out by its growth until it was very thin. The patient made a good recovery and went home at the end of three weeks from the operation when the second photograph was taken.

Synarthrosis Vellosi Case.

By C. M. Strong, M. D., Charlotte, N. C.

John S., age 38 years; at present emaciated; physical examination, except enlarged and painful knee. Negative. Family history negative, except half brother, who died of tuberculosis pulmonales. Was sent to me with history of enlarged and painful right knee, past 9 months. Gradual enlargement, no fever or sweats; wasable to work in field up to one month ago, except at times, when he was compelled to stay in bed for few days. Last month been constant, as he expressed it, grinding pain; on examination the joint is one-third larger in circumference, a boggy feeling, not tense feeling, and shiny appearance of synovitis or pus; rather flaccid feeling, not especially painful; movement of joint limited about one-half; some pain on movement; no marked fluctuation, greatest bulge to the inner and lower part of joint. However, all parts of joint swollen, on manipulating you find a peculiar grating feeling, also can feel some mushy thickened bodies. Suspecting a form of synarthrosis villous I opened joint and found the whole synovial membrane lined with these villous growths firmly attached, some sesile, some pedunculated. These were curetted away with Simon spoon and with scissors, as some were so tough that the spoon would not dislodge, nearly a pint of these were removed, some dark, some white and some mucoid —very little synovial fluid was found of bloody character; hemorrhage was profuse but was controlled by frequent douching of very hot saline solutions.

Technique of Operation.—I found one incision not enough, therefore two parallel ones about three inches long should be used. Sufficient room to grasp these bodies with forceps and clip with curved scissors, as the curette is not sufficient only causes them to bleed very freely, then through the other incision the hot saline can be used. The growths run down each side of the joint in the pockets, which are curetted; the cavity is then packed with gauze and the opening closed, being sure to include the synovial membrane two sutures are left untied, so that when the gauze is removed on the third day it can be closed, I believe a good plan after the operative soreness has disappeared is to apply a well-fitting elastic band or cap, or else plaster cast for awhile, shall use this latter in this case as he is unable to purchase the other, though I think the former preferable. Then passive motion to prevent ankylosis should be used. I could find no literature on the subject, and being a new disease is of considerable interest,

Review of the Report of the Anemic Commission Upon Hookworm Disease in Porto Rico.

In February, 1904, the United States Government appointed a commission to investigate the cause and treatment of anemia in Porto Rico.

The commission consisted of a number of men who were specially interested in this line of work and who up to that time had done most of the original work with the uncinariasis and carried out most of the important research work. Taking these points in consideration, we feel confident in assuring the reader that this work was done in a most careful and scientific manner.

In 1899, Dr. Bailey K. Ashford, who later became a member of this commission, discovered the parasite ankylostoma in the feces of anemic patients who were then crowding the field hospitals of Ponce. This was the first positive evidence that the disease in Porto Rico known as anemia, was not the ordinary form, but ankylostiomiasis or uncinariasis produced by the parasite sucking the blood from the mucus membrane of the upper part of the small intestine and so prevalent did this disease become during the ensuing years that fully 90% of the population became affected.

When the commission appointed by the United States Government began its investigation in Porto Rico it established a hospital consisting of ten wards, first at Bayaman and later at Utuado, the most anemic districts of the island. The object of the treatment was first to remove the parasite and then to cure the anemia.

Thymol, malefern and betanapthol were given to destroy the parasite, preference being thymol. The patient was first given

a purge of salts and then was made to fast the following day until 1 o'clock and then was given thymol in doses not exceeding four grammes, then another purge was given to remove the bodies of the parasites killed by the antiseptic. The first purge was given with the idea of clearing the alimentary tract of mucus and any other material which might interfere with the direct action of the thymol on the parasites in the bowel. The thymol and purge treatment was continued once a week until the feces showed no more uncinaria.

While the thymol undoubtedly destroys the parasite the salts remove them from the intestines and also diminish the amount of toxines in the system, these remedies only clear the field for a reconstructive process in the blood which is needful for the restoration of health of the extremely anemic patient.

Iron was given in the severe cases of anemia. Pepto-Mangan (Gude) was the only proprietary remedy reported by the commission, the other remedies used were pharmacopœial preparations. That over eighteen pages of the report should be devoted to cases treated with Pepto-Mangan proves the high regard in which the commission held this preparation and established the unrivaled clinical value of Pepto-Mangan (Gude) in one of the most severe forms of anemia that of uncinariasis or miners' anemia.

In reading the report of the commission the unbiased character of the work stands out so clearly, and yet the results obtained point so distinctly to the supremacy of Pepto-Mangan (Gude) that if even the numerous other records were not available proving the therapeutic value of this remedy this report alone would suffice to establish Pepto-Mangan (Gude) at once as the foremost hæmatinic known. The eighteen cases in which the commission used Pepto-Mangan in the treatment of uncinariasis were selected on account of their extreme severity and thus these cases represent the most crucial test to which any iron preparation can be subjected. The results obtained with this treatment were extremely gratifying.

In nearly all the cases we find such notes as these: "Excellent condition, completely cured," etc., while the difference between the low percentage of hæmoglobin (some cases only showing 11%) and the low count of the red cells at the beginning of treatment with Pepto-Mangan and the nearly normal findings at the conclusion affords convincing proof of the efficacy of the medication.

A noteworthy fact is that none of the patients showed any digestive disturbances after the administration of Pepto-Mangan although the remedy was used for many weeks in each case. This may be considered a most important and vital point in favor of this preparation, for we all have had most unsatisfactory experiences with the various pharmacopœial preparations, especially in the most severe cases of anemia where the conditions demand a long and continued use of the drug before good results were forthcoming. When we remember the extremely low state in which most of these patients were found on admission and the fact that several suffered from gastro-intestinal disturbances incident to the disease, this detail is by no means to be underestimated.

The observations of the commission were made under government control, and therefore the report may be regarded as a supreme test and the efficacy of Pepto-Mangan in one of the severest forms of anemia is proved beyond a doubt.

Pyroctin.

Pyroctin is a drug which relieves those constitutional disturbances which manifest themselves in Neuralgias, Myalgias Muscular pains, fever and chills and conjestions of the various internal organs which are frequently aggravated by the administration of remedies which instead of relieving the conditions, attendant pain tend to further depress the already depleted system.

The various coal tar products of the pharmacopea are used for the purpose above mentioned. But they are given usually by the physician with the utmost care as they all act as direct depressants to the heart and often small doses may cause a marked cyanosis, more especially if the patient has an idiocyncrasy for these preparations, therefore, in using Pyroctin, one gets the relief of pain without having any fear of depressing the heart and at the same time does not further depress the already depleted system.

Pyroctin is a safer and efficient analgesic antipyretic and hypnotic, and instead of acting as a heart depressant acts as a systemic tonic.

In myalgia neuralgia, etc., we have many drugs that relieve these conditions temporarily at the expense of irritating and depressing the whole system, but Pyroctin removes the cause without interferring with the normal function of the heart and other organs.

It is used in combination with salol quinine codeine, etc., as an antipyretic it lowers the temperature, lowers the pulse, promotes sleep, soothes and drives away delirium without causing any unpleasant after-effects. It has been found very useful also in periodic fever. It has proved of great value in Bronchitis, Hysteria and Convul-

sions, Ovarian and Visceral Pains, Headaches at Menstrual Period. In rheumatism and gout it acts as a direct antiarthritic, allaying the disease even where the pain is less insense and the swelling more modified. It has proved successful where the iodides and salicalytes have failed.

Treatment of Brachialgia and Sciatica.

Harburn, in the British Medical Journal, says that in the acute stage rest is absolutely essential. The leg may be placed on a well-padded splint or the arm in a sling. Dry heat applied by means of the Greville or Dowsing apparatus, or, if these are not available, india-rubber hot-water bottles, will be found effective. A combination of aspirin 6 grains, phenacetine 5 grains, salicylate of quinine 2 grains, and codeine ¼ to ½ grain acts well. The bowels should be thoroughly cleared with small doses of calomel, followed by salines. When the pain is severe and persistent an occasional injection of morphine and atropine may be necessary. The subacute stage, often protracted and troublesome, is frequently benefited by hydrotherapy. In sciatica the half-combined bath is serviceable. The patient sits in a vapor bath which comes up to the waist line only; this while not exhausting the patient as much as a full vapor bath, allows a higher temperature to be borne by the affected part. A temperature of 150 deg. F. can be tolerated with advantage from ten to fifteen minutes. At the end of this time the patient sits in a bath of the Buxton thermal mineral water heated to 95 degr F. for eight minutes, and during the last three minutes a hot undercurrent douche at 102 deg. to 110 deg. F. is applied to the limb. Electricity in its various forms is useful, particularly the sinusoidal electric bath or d'Arsonval high-frequency currents. Acupuncture is beneficial, as is also a blister over the head of the affected nerve.

In the treatment of the chronic forms of sciatica and brachialgia it is essential that distinction be made, if possible, between true neuritis and other forms of these complaints. When neuritis is absent the Aix massage bath, with the douche applied to the painful part, is of great value. Dry and electric massage, followed by gentle stretching of the nerve, where adhesions are present, may be resorted to. In true neuritis massage is not as a rule beneficial, and nerve stretching is contraindicated. The combined bath, alternating with the natural swimming bath and the application of electricity in the form of the constant current (5 to 15 milliamperes) ascending and descending over the affected nerve, or in the form of the constant current bath, are of much service. The affected limb should be kept warm by the wearing of double sleeves or double-legged pants of wool. The injection of ½ grain of pilocarpine nitrate on alternate days, where there is organic cardiac lesion, has been highly praised by Farquehar.

Placentation in Woman.

Friolet (British Gynecological Journal) comes to the following conclusions: The ovum buries itself in the mucosa and is not, as was believed, walled in by the cells of the mucous membrane. The intervillous space probably arises after the manner of the formation of a massive trophoblastic calyx, and afterward becomes altered into a blood space with an interspersed scaffolding, and from the members of this scaffold the chorionic villi are formed by the ingrowth of the fetal mesoblast of the wall of the germinal vesicle. The intervillous space has nothing to do with the cavum uteri, and undoubtedly from the beginning has the function of a blood sinus. The villous epithelium in its early stages consists of a double layer of cells, Langerhans's layer and the syncytium, the latter probably derived from the fetal ectoderm, with fine ciliæ externally. The question of the origin of the syncytium is unsettled, but the authors own researches all suggest that it is derived from the trophoblast. When fully formed the syncytium appears to be independent of Langerhans's layer.

Osteitis Deformans and Heredo-Syphilis.

Etienne (Annales de Derm. et de Syph.) compares the characters of osteitis deformans with certain forms of heredo-syphilis. In both cases there are fundamental peculiarities: (1) A predilection for certain long bones, especially the tibia; (2) the lesions are generally multiple; (3) there is a premonitory painful stage; (4) there is a massive hyperostosis; (5) the osteopathies are deforming, producing in each the "sabre tibia." Fournier admits the resemblance, but says that in the same individual there should be found osteitis deformans with stigmata of heredo-syphilis, or the existence of syphilis in the parents.

He reports the case of a child aged six years who had keratitis at three years. The tibiæ were greatly thickened with double incurvation, and much increased in length (equal to the femurs). Over the right tibia was a large tertiary syphilitic ulcer. The child could walk at three years, but not afterwards. He quotes similar cases reported by others, and concludes that they form connecting-links between the two—i. e., that osteitis deformans is a late manifestation of heredo-syphilis.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - -
- - - - - - - - - - - Charlotte, N. C.

THE NORTH CAROLINA MEDICAL SOCIETY MEETING.

The fifty-second annual session of the North Carolina Medical Society was held in the city of Greensboro, May 23, 24 and 25. This was the largest and most interesting meeting in the history of the Society. There were over 600 members present during this session, every section of the State being well represented. Greensboro is in many respects an ideal place for such a meeting.

The doctors of Greensboro, and especially the ladies, deserve the heartiest praise for the way they so delightfully entertained those present at the meeting. The railroad facilities and the ample hotel accommodations all go to show that Greensboro can be depended on at any time for meetings of this kind. Some of the members availed themselves of the opportunity of visiting the new hospital which is in process of building and all are agreed that it bids fair to be one of the finest and best equipped in the State. Although some of the members are disposed to discourage the social functions usually indulged in at these meetings, they must be decidedly in the minority, as evidenced by the large number that took part in both the reception at the Normal School and at the hotel. We, therefore, now look to those who have this in charge when the meeting is held in Charlotte next year, to make this part of the programme pleasant and enjoyable to all present. Many of the physicians take this opportunity to attend these meetings partly as a recreation and it is therefore important that their time spent at the meeting should in part be devoted to those lines that are entirely free from the daily routine work of a busy practitioner. By this time next year when the Society meets in Charlotte we will have one of the finest hotels fully equipped and ready to take care of a larger number of members than were present at Greensboro.

Dr. Chas. Roberson, of Greensboro, chairman of the reception committee, made an address of welcome in behalf of the local medical fraternity. His address, although short, was full of that hospitality which is so characteristic of the Greensboro fraternity.

Dr. Chas. D. McIver, President of the State Normal and Industrial College, delivered the address of welcome in behalf of the Chamber of Commerce of Greensboro. Although Dr. McIver seemed to be at a loss to know why the Chamber of Commerce should select him to represent them, we know of no one who could have given us a more cordial welcome.

He said the medical profession was the only one of the learned professions having the absolute confidence of the ignorant and warned us that there could be no responsibility heavier than this; also, that no aggregation of citizens could do more than physicians to elevate the tone and the standard of citizenship, and right nobly have these opportunities been improved to uplift communities as well as to alleviate pain.

Representing the city of Greensboro, Hon. A. L. Brooks extended a welcome, convulsing his audience with laughter, when in conclusion he congratulated the city on having so many of the healing art to honor it and begging them to do everything they pleased except to Oslerize the strenous citizenship of Greensboro.

Dr. L. B. McBrayer, of Asheville, responded to the address of welcome in a beautiful and complimentary manner. He was surpassingly eloquent in speaking of the cares, the opportunities and the privileges of physicians, proving true the introductory remarks of Dr. Roberson when he said Dr. McBrayer was one of the most eloquent speakers in North Carolina.

PRESIDENT'S ADDRESS.

Dr. D. T. Tayloe, of Washington, President of the North Carolina Medical Society, delivered the annual address, the subject being "The Growing Need of Hospitals and Isolation Hospitals." In this address Dr. Tayloe pointed out the necessity of having hospitals, not only in the larger cities, but in the towns of 4000 and 5000 population. As population and progress increases the ratio of injuries increases and the need for hospitals were ever present and pressing. He outlined the greatest practical methods known for emergency and isolation hospitals, and for the great impetus this work was giving the movement to establish permanent hospitals, either public or private. Dr. Tayloe then thanked Dr. J. Howell Way in behalf of the Society for his efficient work as secretary.

The addresses delivered at the State Normal and Industrial College by Drs. Hayes and Tucker were most scholarly and scientific, and yet were so worded that any layman could fully appreciate all the points in both papers. That it is no small task to write a paper that can be of a scientific character and yet fully appreciated by the public at large can only be realized by those who have attempted such an undertaking.

BOARD OF MEDICAL EXAMINERS.

Through the courtesy of Dr. Pressly, secretary of the examining board, we have the

privilege of printing the report of this board as submitted to the Society. The work of the board at Greensboro was most thorough and rigid as evidenced by the fact that out of 127 applicants 88 were successful. The examinations were fair, testing the knowledge of the applicant as regards his practical as well as theoretical knowledge of medicine in all its respective branches. In comparison with other State boards North Carolina has a high standard which necessitates a high class of physicians turned out by the board for which the citizens of the State may be truly thankful. The method of numbering the papers and not signing the names of the candidate removes all question of partiality on the part of members of the board.

It appears to the writer that the Board violated a written law that is supposed to govern the examinations, certainly they violated a precedent in having seven examinations in three days. Former boards have wisely concluded, as we think, that no applicant can do himself justice when on examination twelve hours out of the twenty-four. To crowd three examinations in one day, or a morning examination, an afternoon examination, and a night examination is a bad precedent to establish.

THE SECRETARY.

The office of secretary of the Society is indeed one of the most trying and most difficult offices to fill. The Society is to be congratulated on having Dr. J. Howell Way as secretary. Under his supervision and painstaking care every detail is thoroughly investigated and recorded. These are the things that go to make the Society of North Carolina one of the strongest and most scientific organizations of its kind in the United States.

Dr. Way, it will be remembered, was chairman of the committee on reorganization, and it may be said that mainly through his untiring efforts that this plan was adopted. Since the adoption of the plan of reorganization he has ever been its most ardent supporter, and now realizes as do all the members that this plan has proven not only what was expected but far more than its originators ever anticipated.

The Courthouse of Greensboro was used for the meetings of the Society. Here many most interesting papers were read and thoroughly discussed. The attendance was unusually large and every one seemed most deeply interested in the work that was being done. The papers read showed that the writer had taken time to thoroughly investigate his subject and to prepare it in a manner which wonld be of credit both to himself and the Society. The discussions were conducted in a most scientific manner so that any one present who did not carry away with him some new ideas or some food for more thought and consideration must indeed be a very poor listener. The papers were systematically arranged in sections so that any one interested in one particular line of work might spend his time listening to that which most interested him and utilize the remainder in some little recreation which is so essential to the busy and overworked practitioner.

Among those present which deserve special mention was Dr. Adolph Meyer, Professor of Cornell University and Director of the Pathological Institute of the City of New York on Long Island. Dr. Meyer was introduced by Dr. Geo. Thomas, of Wilmington. Dr. Meyer was unanimously extended the privileges of the floor and requested to take part in the discussions of the session. In returning his appreciation for the compliment, Dr. Meyer said that in the future mental diseases would be one of the most important cares of the medical profession. He also laid great stress on the importance of trained specialists, but declared that the family physician more than ever in the history of human life needed to understand thoroughly the diseases of the mind.

We shall conclude by saying that the Greensboro meeting was one of the largest and most successful in the history of the Society and we now look forward to a larger and even more interesting meeting in Charlotte next year.

A GROSS INJUSTICE TO NORTH CAROLINA MEDICAL SCHOOS.

In the Journal A. M. A. Association of May 6, is published a very elaborate series of tables exhibiting in detail the results of the examinations held in the various States during the year 1904 for license to practice medicine. The tables are complete, comprehensive and replete with much valuable information relative to the standards of medical education in the 163 medical colleges of the country.

In the year 1904 the Examining Boards of the various States passed upon the qualifications of 8034 graduated doctors, and licensed of this vast army 5672, and rejected 1365—the percentage of failures being 19.3.

A not inconsiderable portion of these men were graduates prior to the year 1904. The 1904 graduates making a better showing before the boards. 4542 of the number were graduates of 1904 and from among this number 3533 were granted license, and 449 refused—the percentage of rejectionsfor the graduates of 1904 being 11.3.

In a critical study of this data contained in the tables the Association Journal presents in its editorial column a small table

showing in detail the percentage of rejections of graduates from the medical schools of each State by all State Boards, and it fails to the unenviable lot of North Carolina to present the greatest percentage of failures, to-wit: in the "graduates of allyears" we lead with a record of 39.6., and in "graduates of 1904" 34.1.

But a little investigation shows that the high percentage of the failures of North Carolina graduates in medicine is due to the record of the graduates of the negro medical college at Raleigh—the Medical Department of Shaw University or Leonard Medical College as it is usually called.

A glance at the figures below is interesting:

	Passed.	Failed.	Rejected.	Totals
Physicians Examined by all State Medical Licening Boards in 1905.....	5672	1363	19.3	8034
N. C. Medical Colleges.				
University of N. C.....	4	0	0	4
*Wake Forest Med. College				
N. C. Medical College (Davidson).....	19	1	5.	20
Leonard Medical College (Shaw University).....	12	22	64.7	34
Physicians examined by all State Examining Boards in 1904, graduates of the year 1904. All Medical before all State Examining Boards—graduates of 163 schools.....	3643	449	11.3	4542
N. C. Medical Colleges:				
Univ. of N. C.....	4	0	0	4
*Wake Forest Med. College				
N. C. Medical College (Davidson).....	17	0	0	17
Leonard Medical College...	8	15	65.2	23

While an occasional negro is found in the medical classes at Harvard and other of the eastern schools of medicine, yet it is a fact that the great majority of negroes who study medicine do so at the schools in Raleigh, N. C., Nashville, Tennessee, and Washington, D. C. and it would only have been eminently fair and proper in the editor of the Association Journal when he began to figure out the relative percentage of failure of graduates for the medical schools of the various States to have taken cognizance of the presence of a considerable percentage of negro graduates in the colleges of certain States before he published gross results which upon the surface appear to the discredit of the medical colleges therein located.

A cursory survey of the figures in the above table reveal the fact that the correct percentage of failures of graduates from North Carolina schools of medicine graduating in the various years prior to 1904 as evidenced in the examinations by the various State Boards of the country for the examinations held in 1904 was for white men only 5%. And of white graduates of the classes of 1904 the percentage of failures was 0. A very striking contrast to the figures which Dr. Simmons parades to the world as evidencing the standard of medical education in North Carolina and which figures place her at the bottom of the list of all the States of the Union, when the facts are that she should when the records of her white graduates are studied come at the top, being better than that of any other Southern State and equaled by few in any section. Taken—13 States—at random over the country we note for comparison the percentage of failures of all graduates without regard to year of graduation before the Boards in 1904 was as follows:

Alabama, 11.1; Georgia, 8.8; South Carolina, 7.7; Texas, 14.3; Virginia, 8.5; Massachusetts, 7.5; Wisconsin, 33.3; Michigan, 12.5; Louisiana, 15.9; Illinois, 8.2; New York, 5.3; Maryland, 28.7; Ohio, 19.3; North Caroiina (White Doctors) 5.

Again take the record of the examination of graduates of all colleges in 1904 before all State Boards in 1904 and examine the individual States.

Alabama, 3.1; Georgia, 1.4; South Carolina, 4.8; Texas, 16; Virginia, 6.2; Massachusetts, 6.7; Wisconsin, 37.5; Michigan, 3.; Louisiana, 6.7; Illinois, 4.9; New York, 2.5; Maryland, 27.8; Ohio, 9; North Carolina (white doctors) 0.

It is with pleasure the writer directs attention to this matter which vitally concerns the reputation of the Medical Colleges of North Carolina. As has been suggested before in these columns, there is a distinct and a very proper field for the smaller medical schools and we are inclined to believe the medical colleges for white men in this State are fully meeting their responsibilities in this connection, and we regret the publication of statistics which show apparently to the contrary. While the writer has never been connected in any way whatever with any of the schools of medicine of this State, it was his fortune for a number of years to examine the applicants for license in this State, and it is but just to the North Carolina schools of medicine for white men, to say their grades were on the average good and worthy of favorable comparison with any.

* Wake Forest not conferring the degree in medicine no graduates are accredited to this school.

Dr. John F. Winn of Richmond, Va., has been elected Professor of Clinical Obstetrics of the University College of Medicine. The University has made a wise selection in this appointment. Dr. Winn is widely known as a teacher.

SOUTH CAROLINA MEDICAL ASSOCIATION.

The fifty-seventh annual session of the South Carolina Medical Society convened in Greenville April 3rd. The address of welcome was delivered by Major Mahon, and by Dr. Thos. T. Earle on behalf of the Greenville County Medical Society. The annual address was delivered by Dr. John H. Musser of Philadelphia. Dr. Robert Wilson of Charleston, presided, and in his address he discussed the illegal practitioner of South Carolina. The society took rather an unwise step, as we see it, in the way of publishing its transactions, but it is along the line suggested by Dr. Simmons and his "crowd" in Chicago. This is what they want, that is each State to have its little local journal controlled and owned by the State Society, and this is what the South Carolina Medical Society has done, simply fallen into Dr. Simmons' trap. Some day when one of its enterprising physicians undertakes to start an independent medical journal in the State he will find that it is not at all practical.

The new officers of the society are, president, Dr. Davis Furman, Greenville; vice-presidents, Drs. Stewart W. Pryor, Chester; Crown W. Torrence, Union, and David B. Frontis, Ridge Spring; secretary, Dr. T. Prioleau Whaley; treasurer, Dr. Charles P. Atmar. The councillors are, Drs. Edward F. Parker, Charleston, first district; Theodore G. Croft, Aiken. second district; Orland B. Mayer, Newberry, third district; J. Wilkinson Jervey, Greenville, fourth district; Frank H. McLeod, Florence, sixth district; and W. P. Moorer, Georgetown, seventh district.

The society will meet next year in Columbia the third Wednesday in April.

THE AMERICAN ANTI-TUBERCULOSIS CONGRESS.

This Congress met in Atlanta, Georgia, April 15th. The attendance was very large, over five hundred physicians were present. Representatives from nearly every part of the United States were there and a great many prominent physicians from European countries attended. Governor Terrell delivered the address of welcome, and Clark Howell, editor of the Atlanta Constitution, also made an address. Dr. George Brown in his opening speech made a good impression. Altogether the Congress was a great success.

DR. LOUIS F. HIGH.

Dr. Louis F. High of Southern Pines, died in New York May 3rd, of sarcoma of the neck. His death is a great loss to the medical profession of North Carolina. He was a frequent contributor to medical literature, and what he wrote was considered authority on his specialty, which was tuberculosis. A few years ago he established at Southern Pines the Pineshire Sanitarium. He made a great success of this institution.

THE ALBAMA MEDICAL ASSOCIATION.

The fifty-eighth annual session of this society was held April 18th, 19th, 20th and 21st. About two hundred physicians were present. Dr. Jones of East Lake, Ala., presided. A great many prominent specialists were present and participated in the discussion of the various papers. The society recommended that a State Commission be created for the purpose of stopping the spread of tuberculosis.

THE BOARD OF HEALTH OF NORTH CAROLINA.

Recently Governor Glenn appointed Drs. Way of Waynesville, and Spencer of Winston, on the Board of Health. The Governor certainly made a wise selection when he appointed these gentlemen. They are specially fitted for this work, and are well known and prominent in their respective sections of the State.

Minutes of the Fifty-second Annual Session of the Medical Society of the State of North Carolina, Held in Greensboro, N. C., May 23, 24 and 25, 1905.

GENERAL MEETING.

The Society was called to order at 10 a. m., in the Courthouse, by Dr. Charles Roberson, Chairman of the Committee of Arrangements.

Prayer was then offered by the Rev. H. W. Battle.

Dr. Charles D. McIver, President of the State Normal and Industrial College, then delivered the address of welcome for the Chamber of Commerce.

Address of Welcome, from City of Greensboro, by the Hon. A. L. Brooks, Solicitor.

Response on behalf of Society, Dr. L. B. McBrayer, of Asheville. (Past Grand Master of the Odd Fellows.)

The President's Address was then delivered by Dr. David T. Tayloe, of Washington.

Dr. Booth then moved that the President's Address be referred to the Committee on the President's Address.

Dr. Weaver: Mr. Chairman, I amend that motion by substituting, "The Committee shall be appointed by the Committee of the House of Delegates—that it be referred to a Committee of the House of Delegates, who will report to that body on the merits of the address." (Motion carried.)

President David T. Tayloe:

The paper of Dr. W. H. H. Cobb, Jr., of Goldsboro, was then called, subject, "Dysentery," but Dr. Cobb was absent.

The paper of Dr. John T. Burrus, of High Point, on "Enteritis Follicularis, Symptoms and Therapy," was then read.

Dr. George G. Thomas, of Wilmington, then introduced Dr. Adolph Meyer, Professor of Psychiatry of Cornell University, and Director of the Pathological Institute of the State of New York, situated on Ward's Island. (The courtesies of the floor extended.)

Dr. Meyer responded.

Dr. Burrus' paper was then discussed by Dr. I. W. Faison, of Charlotte.

Dr. H. F. Long's paper was then called for, but Dr. Long was absent. (Subject: "Tænia Nana.")

Paper by Dr. Charles Mosely, of North Wilkesboro, on "Importance of Exact Diagnosis in Diseases of the Stomach." (No discussion.)

Paper called for by Dr. W. O. Nisbet, of Charlotte, on "Early Diagnosis of Cancer of Stomach." (Absent.)

On motion the Society then adjourned for dinner.

Society met at 3:00 o'clock Tuesday afternoon. Called to order by Dr. David T. Tayloe, the President.

Dr. H. B. Weaver's paper was called for, on "Pneumonia," but the Doctor was absent. The Society returned to the program of the morning session and listened to the paper of Dr. W. H. H. Cobb, Jr., of Goldsboro, on "Dysentery." (No discussion.)

Dr. Parrott: "I desire to present the report of the State Board of Medical Examiners."

Before presenting that report, I have a resolution which I wish to read before the members of the North Carolina Medical Society. (See paper.) This resolution, urging the vital importance of proper preliminary education of medical students, was referred to the House of Delegates.

The President then announced that the street cars left the hotels promptly at 8:00 o'clock that night for the State Normal, and requested all to be on hand who desired to go.

Dr. H. F. Long, of Statesville, then read a paper on "Tænia Nana."

Discussed by Dr. J. C. Walton.

Paper called for by Dr. Nisbet, of Charlotte, on "Early Diagnosis of Cancer of Stomach," but the Doctor was absent. (Paper read later in session.)

Paper called for by Dr. J. B. Wright, of Granite Falls, on "Pneumonia from a Personal View-Point." (Absent.)

Paper called for by Dr. H. M. McBryde, of Milton, on "Some Practical Observations on Pneumonia and Its Complications." Doctor absent. (Paper read later.)

Paper by Dr. Wade H. Anderson, of Wilson, on "Pneumonia, Practical Suggestions as to Therapeutics." (No discussion.)

Vice President Julian:

Paper called for by Dr. Charles B. McAnally, of Madison, on "Influenza, Its Sequelæ and Therapeutics."

Discussed by Drs. I. W. Faison, of Charlotte, and J. C. Walton.

Paper called for by Dr. W. W. McKenzie, of Salisbury, on "The Effects of Influenza Upon the Nervous System." (Absent, read later.)

Paper called for by Dr. Wm. R. Kirk, of Hendersonville, on "Early Diagnosis of Pulmonary Tuberculosis." (Absent.)

Paper read by Dr. J. Thomas Wright, of Winston, on "Neurasthenia." (No discussion.)

Paper called for by Dr. J. Allison Hodges, of Richmond, Va., on "The Systematic Use of Graduated Work in the Treatment of Simple Neurasthenia." (Absent.)

Vice President: On account of the absence of so many of the doctors, who were to read papers, we will hear the paper by Dr. Fred K. Cooke, of Wake Forest, on "The Duodenal Ulcer—Its Etiology, Symptomatoly, Prognosis and Treatment." (No discussion.)

Paper read by Dr. Charles Roberson, of Greensboro, on "The Modification of Cow's Milk in Infant Feeding."

Discussed by Dr. John T. Burrus.

Paper read by Dr. O. C. Daniels, of Oriental, on "Malarial Hæmoglobinuria."

Discussion by Drs. J. M. Parrott, N. P. Coppedge McMullen, (Dr. Thompson, of Jacksonville, Onslow county, introduced) Dr. Thompson, Dr. O. C. Daniel.

Dr. Way then introduced W. A. Applegate, Chief Surgeon of the Southern Railway, with headquarters at Chattanooga, Tenn. Dr. Applegate was extended the privileges of debate.

Responded to by Dr. Applegate, and privileges of debate accepted with thanks.

Paper called for by Dr. R. V. Brawley, of Salisbury, on "Defective Hearing in Children." Doctor absent. (Read later.)

Motion was then made to adjourn, but Dr. Knox requested the Society to hear the paper of Dr. Denning, on "Life Insurance Examinations—The Duties and Responsibilities of all Concerned." Dr. Denning, being absent, his paper was read, by courtesy, by Dr. Hicks, of Dunn.

Discussion by Dr. A. J. Crowell, of Charlotte.

A recess was taken until 8:30 that evening.

TUESDAY EVENING, MAY 23.

The general meeting of the Society resumed in the Auditorium of the State Normal College at 8:30 p. m., Dr. David T. Tayloe, the President, presiding. Dr. Tayloe then introduced Dr. Ben K. Hays, of Oxford, who delivered the annual oration. Subject: "The Influence of Psychic Phenomena Upon the History of Medicine."

Dr. John Hill Tucker, of Henderson, was then introduced, and delivered the annual essay, "The Physician and the Public."

A reception was then held in the halls and dining room of the institution.

WEDNESDAY MORNING, MAY 24.

Session resumed at 9:30, Dr. David T. Tayloe, presiding.

Paper called for by Dr. H. B. Weaver, of Asheville, on "Pneumonia." (No discussion.)

Dr. Russell:

Dr. Russell then stated that Dr. Guy L. Hunter, of Baltimore, was present, and asked that he be accorded the privileges of the floor. Motion carried.

The next paper called for was that by Dr. J. A. Walton, of Danville, on "Physical Therapeutics." (Dr. absent.)

On motion Dr. W. L. Robinson, of Danville, was accorded the privileges of the floor.

Dr. Wilson then asked that Dr Robinson be allowed to discuss the paper which had been read that morning. Dr. Robinson did so.

The Chairman's Report on Physiology and Chemistry was then called for and read. (No discussion.)

Paper by Dr. W. J. Martin, of Davidson, on "The Bearing of the Medical Fraternity to Chemistry, What it Is, What it Should Be." (No discussion.)

Paper by Dr. J. W. Peacock, of Thomasville, on "Edible and Poisonous Fungi in North Carolina."

Discussion by Dr. R. H. Whitehead.

Paper read by Dr. M. Eugene Street, of Glendon, on "The Internal Secretions." (No discussion.)

Paper called for by Dr. W. C. Steele, of Mt. Olive, on "The Vital Importance of Physiologic Elimination by the Kidneys." (Dr. absent. Paper read by title.)

Dr. Faison read the next paper on "Metabolism." (No discussion,)

Dr. T. S. McMullen then moved that the program be suspended until the Secretary had the opportunity to present a matter to the "Society which every physician in the State is interested in, which we would like to have discussed by as many peysicians as we can. Therefore, we ask for a suspension of the program until this matter can be disposed of." Motion carried.

Secretary then read report relative to Life Insurance Examinations. (See paper.)

Motion carried to "move the adoption of this report."

Dr. A. W. Knox objected to the passage of these resolutions until every member present could have an opportunity to discuss the resolutions.

Motion was then made to declare these discussions in order.

Discussion participated in by Drs. Mason, McMullen, Knox, Mason, Knox, McMullen, G. T. Sykes, Knox, Faison, R. Armfield, Irwin, McMullen, Mason: The amendment that I would suggest is: (See paper) Dr. Knox moved that they strike out that the fee should not be less than $2. That he would accept the resolution attached to the motion with the amendment stricken out.

Dr. J. T. Burrus requested that, as the rear of the house could not hear very distinctly, that the resolutions be read, which was done. He then said he would like to second the resolution, as it was only a recommendation to the County Societies that they have the resolution re-read and adopted by the Society, without further discussion.

Dr. H. W. Lewis moved that the original resolution be put to the House, without amending.

The original resolution was passed.

Paper by Dr. R. A. Whittaker, of Kinston, was called for, on "Materia Medica and Therapeutics."

Dr. Lewis: Mr. President, the time for the conjoint session of the State Medical Society and the State Board of Health, has now arrived.

Dr. Way: Mr. Chairman, before the conjoint session begins, I desire to report the following, on Committee of Nominations." (See paper.)

Conjoint session called to order by Dr. S. Westray Battle. Dr. R. H. Lewis, Secretary, read the report. It was moved and seconded that the report be adopted.

Dr. Levy, of Richmond, then read a paper on "Relative Value of the Various Methods of Determining the Sanitary Qualities of a Water Supply."

Lengthy discussion by Dr. W. J. Martin.

Dr. Joseph Graham, of Raleigh, then suggested a movement to postpone his paper until after dinner, which was carried.

The conjoint session was then closed, and a recess taken until after dinner.

WEDNESDAY AFTERNOON, MAY 24.

Session called to order at 3:30 by Vice-President Julian.

Dr. Joseph Graham's paper, "A Proper Milk Supply for the Cities and Towns of North Carolina," was then read. Discussions by Drs. R. H. Lewis, H. B. Weaver, (lengthy) Mr. Charles Moore, of Charlotte, dairyman, (few lines.) Lengthy discussion by Drs. Faison and Weaver.

Paper read by Dr. J. P. Monroe, of Sanford, on "Burns as Seen by the General Practitioner, and Their Treatment." Discussion by Dr. Hubbard.

Vice-President: Dr. Lynn McIver asks that I read his paper by title.

Dr. Holmes, of Biltmore, on "Post-Operative Nausea and Vomiting—Is the Operation or the Anesthetic the Cause?" Discussion: Dr. G. L. Hunter, Baltimore, (lengthy) Drs. Roberson, Weaver, A. C. Harrison, of Baltimore, J. M. Templeton, Carey, Holmes, Poole

The report of the Obituary Committee was then read.

Dr. Booth (a friend) spoke.

Paper by W. O. Spencer, of Winston, "A Plea for the Prompt and Efficient Treatment of Gunshot and Other Wounds of the Abdomen, with Clinical Reports." Discussion by Dr. Templeton, of Carey, Dr. Robinson, Dr. Hargrove, Dr. Spencer and Dr. Payne (lengthy.)

Dr. Long, of Greensboro, on "Gallstones, with Reports of Cases." (No discussion.)

Dr. Hunner, of John Hopkins, then read his paper. Discussion: Dr. Jones.

Paper read by Dr. E. A. Lockett, of Winston, on "The Gastric Ulcer." (No discussion.)

Paper called for by Dr. A. C. Harrison, of Enfield, on "Surgery of Stomach and Duodenum." (Absent.)

Paper called for by Dr. Stewart McGuire, of Richmond. Unable to be present. (Subject: "Surgical Treatment of Dyspepsia.")

Paper was read by Dr. John R. Irwin, of Charlotte, on "Gastrostomy." Discussed by Dr. C. C. Hubbard.

Report of the Chairman, Dr. D. A. Stanton, High Point, on Railway Surgery, was called for, "Some Peculiarities of Railway Surgery." (Dr. was absent.)

The Wednesday evening session was called to order at 9:15 by the President, Dr. David T. Tayloe.

Paper was read by Dr. Julian, the Vice-President, on "The Responsibilities of the Railway Surgeon." (No discussion.)

The Annual Debate, "A Plea for More Liberal Diet in Typhoid Fever." Leader of Debate, Dr. E. T. Dickenson, Wilson. (See paper.)

Personal Views on the Management of Typhoid Fever," Dr. E. C. Register, of Charlotte.

(Dr. Fox here announced that the Guilford County Medical Society had prepared a reception in the Benbow Assembly Hall, upstairs, first, and after they were through there, they would go to the dining room.)

Paper was then read by Dr. F. M. Winchester, of Charlotte, on "Intestinal Antiseptics in Typhoid Fever."

A general discussion of all the papers was then indulged in, headed by Dr. Julian, (lengthy). Dr. Robeson, (lengthy) Dr. Weaver, (lengthy) Dr. Sykes, (lengthy) E. H. Brooks, R. A. Whittaker, J. P. Macon, (lengthy) Dr. Templeton.

It was then moved, as it was 10:30, that the meeting adjourn until the following morning.

Wednesday Morning, May 25. Meeting called to order by the President, Dr. David Tayloe.

Paper called for and read by Dr. Stewart, of Monroe, on "Prophylaxis of Typhoid Fever." (Discussion.)

Dr. E. H. Brooks, Dr. Weaver, (lengthy) A. A. Kent, W. P. Horton, E. M. Street, E. M. Summerell, W. P. Whittington, Hubbard, Worthville, E. T. Dickenson, Weaver, Dickenson.

Dr. Winchester was then called for, also Dr. Stewart, but both were absent.

Paper was read by Dr. LeGrand Guery, of Columbia, on "Appendicitis."

Discussion by Drs. Royster, (long) Weaver, Kent, Weaver, Long, Guery. (Introduced Dr. Winslow—R. of Baltimore.) Dr. Winslow then took part in the discussion. Drs. Templeton, R. E. Mason, Whittington, R. L. Payne, of Norfolk, (lengthy) J. W. Long, (lengthy) Guery.

Paper read by Dr. Paddison, on "Report of a Case of Fracture-Luxation of Spine, Operation, Results, Present Condition of Patient." Discussion: Dr. J. W. Long.

Paper called for by Dr. Hicks, of Dunn, on "Exomphalos—Report of a Successful Operation."

Paper by Dr. R. Winslow, of Baltimore, on "Diagnosis and Treatment of Tuberculosis of Kidney." Discussion: Drs. Crowell and Payne.

Paper read by Dr. Crowell, of Charlotte, on "Rectal Fistulae."

Motion carried to wait to discuss this paper until after dinner.

THURSDAY AFTERFOON, MAY 25.

Dr. Tayloe introduced Dr. Register, the President-elect for the ensuing year, who, in a few well chosen remarks, expressed his appreciation of the honor conferred, after which the regular order of business was resumed.

The first paper was read by Dr. R. L. Payne, on "Perinael Drainage in Opera-

tions for Hypospadiasis and Epistasis." (No discussion.)

Paper read by Dr. St. Clair Spruill, of Baltimore, on "Report of Case of Round-Cell Sarcoma of Tongue." Discussion by Dr. Stephenson.

Paper read by Dr. Parrott, of Kinston, on "Electro Therapeutics of Epithelioma."

Paper read by Dr. B. S. Moore, Charlotte, on "The Surgical Aspect of Tri-Facial Neuralgia." Discussion by Dr. A. J. Crowell.

Paper called for by Dr. Taylor, of Richmond, on "The Operative Treatment of Aneurism." (Absent.)

Paper called for by Dr. Wm. DeB. McNider, on "Urinary Concretions, Presentations of Specimens."

Paper called for by Dr. Whitehead, of Chapel Hill, on "The Anatomical Basis of Heredity."

Paper called for by Dr. Rankin, on "The Bearing on Recent Theories of Immunity on Therapeutics,"

Paper called for by Dr. Williams, of Greensboro, on "Differentiation of the Tubercle Bacillus and the Smegma Bacillus by Staining and Its Clinical Importance." (Absent.)

Dr. Wood, of Wilson, was asked to read his paper, but he was absent.

Dr. W. P. Whittington, of Asheville, read a paper on "Tubal Pregnancy."

Dr. Lott, of Winston, paper on "Surgical Treatment of Ectopic Gestation."

Discussions: Drs. Dickenson, Whittington, Lott, Cyrus Thompson.

Paper by Dr. Royster, on "How Far Shall we go in Performaning Multiple Gynaecologic Operations in One Sitting." No discussion.

Paper next read was by Dr. F. R. Harris, on "Puerperal Eclampsia." Discussion by Drs. Mason, of Charlotte, (lengthy) Richardson, Greensboro, Dickenson, H. M. Tucker, Weaver.

Dr. H. McKee Tucker then read a paper on "Obstetrics, a Surgical Art." No discussion.

Dr. Brown's paper was called for, but he was absent.

A "State Society for the Prevention of Tuberculosis," was the title of a paper read by Dr. Stevens, of Asheville.

Dr. Weaver moved that the President be asked to have resolutions adopted for the formation of such a Society.

Dr. Way opposed this action, on the ground that the Convention was no longer representative, and suggested that they wait another year, meanwhile the President be authorized to appoint a committee to consider the advisability of the formation of such Society and report to the Society in 1906 sessions. Dr. Stevens seconded the motion. Motion carried. Dr. Harrison, of Baltimore, presented a paper.

As there was no further business before the House, the Society, after first adopting on motion of Dr. Way, a resolution of thanks to Dr. McIver for the specially delightful welcome that he had accorded the members on the day of their arrival, for the very pleasant entertainment given in their honor, at his Institution, and to the several members of the Guilford County Medical Society, to the State Press and other people too numerous to mention, for the many courtesies extended.

HOUSE OF DELEGATES.

Minutes of the Second Annual Session (Fifty-second of the Society) held in Greensboro, N. C,, May 23, 24 and 25, 1905

The second annual session of the House of Delegates of the Medical Society of the State of North Carolina met in Benbow Hall in the city of Greensboro, N. C., at 3:20 p. m., May 23, 1905.

Called to order by the President, Dr. David T. Tayloe, of Washington, N. C.

Roll-call by the Secretary, Dr. J. Howell Way of Waynesville, N. C., indicated the presence in attendance upon the session the following members of the House of Delegates:

President—Dr. David T. Tayloe.

Vice-Presidents—Drs. C. A. Julian, Jno. T. Burrus and I. W. Faison reported present in the general meeting.

Secretary, Dr. J. Howell Way.

Treasurer, Dr. G. T. Sikes.

COUNCILLORS.

First District—Dr. Oscar McMullan, Elizabeth City.

Second District—Dr. Jas. M. Parrott, Kinston.

Third District—Dr. Frank H. Russell, Wilmington.

Fourth District—Dr. Albert Anderson, Wilson.

Fifth District—

Sixth District—Dr. Hubert A. Royster, Raleigh.

Seventh District—Dr. Edw'd C. Register Charlotte.

Eighth District—Dr. David A. Stanton, High Point.

Ninth District—Dr. Thomas E. Anderson, Statesville.

Tenth District—Dr. Jas. A. Burroughs, Asheville.

Dr. J. F. Highsmith, Councillor for the Fifth District noted absent.

Delegates from the following County Societies present:

First District:

Currituck: Dr. Stuart M. Mann, Moyock.
Camden-Pasquotank-Dare: Dr. W. W. Griggs, Elizabeth City.
*Chowan, Tyrell, Hyde, Jones Alleghany.
Perquimans: Dr. Thos. S. McMullan, Hertford.
Gates: Dr. Geo. C. Brooks, Sunbury.

Second District.

Hertford: Dr. J. Rainey Parker, Union.
Martin: Dr. J. B. H. Knight, Williamston.
Pitt: Dr. E. A. Moye, Jr., Greenville.
Bertie: Dr. Chas. J. Savage, Windsor,
Lenoir: Dr. R. A. Whittaker, Kinston.
Craven: Dr. R. Duval Jones, Newbern.
Pamlico: Dr. O. C. Daniels, Oriental.
Carteret: Dr. C. S. Maxwell, Beaufort.

Third District.

New Hanover: Dr. George G. Thomas, Wilmington.
Onslow: Dr. J. L. Nicholson, Richlands.
Duplin: Dr. O. F. Smith, Magnolia.
Sampson: Dr. J. O. Matthews, Taylor's Bridge.
Columbus: Dr. S. M. Withers, Chadbourn.

Fourth District.

Northampton: Dr. Henry W. Lewis, Jackson.
Halifax: Dr. F. M. Register, Halifax.
Nash: Dr. W. H. Whitehead, Rocky Mount.
Edgecombe: Dr. J. M. Baker, Tarboro.
Johnston: Dr. L. D. Wharton, Smithfield.
Wilson: Dr. E. T. Dickenson, Wilson.
Wayne: M. E. Robinson, Goldsboro.
Green: Dr. G. C. Edwards, Hookerton.

Fifth District.

Cumberland: Dr. A. S. Rose, Fayetteville.
Robeson: Dr. T. L. Northrup, St. Pauls.
Scotland: Dr. W. T. Pate, Gibson.
Richmond, Dr. G. W. Brown, Raeford.
Montgomery: Dr. T. E. Asbury, Asbury.
Moore: Dr. W. A. Monroe, Sanford.
Harnett: Dr. S. P. J. Lee, Dunn.
Chatham: Dr. J. D. Edwards, Siler City.

Sixth District.

Wake: Dr. A. W. Knox, Raleigh
Dr. Wm. DeB. McNider, Raleigh.
Franklin: Dr. S. P. Burt, Louisburg.
Warren: Dr. P. J. Macon, Warrenton.
Vance: Dr. F. R. Harris, Henderson.
Granville: Dr. S. D. Booth, Oxford.
Person: Dr. W. A. Bradsher, Roxboro.
Caswell: Dr. J. F. Badgett, Blackwells.
Alamance, Dr. W. R. Goley, Graham.
Orange: Dr. R. H. Whitehead, Chapel Mill.
Durham: Dr. N. M. Johnson, Durham.

Seventh District.

Anson: Dr. T. F. Meisenheimer, Morven.
Union: Dr. R. Armfield, Marshville.
Stanley: Dr. T. A. Hathcock, Jr., Norwood.
Mecklenburg: Dr. Geo. W. Pressly, and Dr. C. M. Strong, Charlotte.
Cabarrus: Dr. D. G. Caldwell, Concord.
Lincoln: Dr. R. W. Petrie, Lincolnton.
Gaston: Dr. E. C. Boyette, Mt. Holly.
Cleveland: Dr. S. S. Royster, Mooresboro.
Rutherford: Dr. E. B. Harris, Rutherfordton.

Eighth District

Rockingham: Dr. J. A. Williams, Reidsville.
Guilford: Dr. D. A. Stanton, High Point, and Dr. M. F. Fox, Guilford College.
Randolph: Dr. C. E. Hubbard, Randolph.
Forsythe: Dr. D. N. Dalton, Winston.
Stokes: Dr. J. Thomas Smith, Westfield.
Surry: Dr. R. E. L. Flippin, Pilot Mountain.
Yadkin: Dr. E. M. Hutchins, Booneville.
Wilkes: Dr. Chas. W. Mosely, North Wilkesboro.

Ninth District.

Davidson: Dr. D. J. Hill, Lexington.
Caldwell: Dr. A. A. Kent, Lenoir.
Davie: Dr. J. W. Rodwell, Mocksville.
Rowan: Dr. J. Stevens Brown, Salisbury.
Iredell-Alexander: Dr. M. R. Adams, Statesville.
Catawba: Dr. J. A. Childs, Hickory.
Burke: Dr. P. L. Murphy, Morganton.

Tenth District.

Buncombe: Dr. M. H. Fletcher, and Dr. L. B. McBrayer, Asheville.
McDowell: M. F. Morphew, Marion.
Madison: Dr. Frank Roberts, Marshall,
Haywood: Dr. Thomas Stringfield, Waynesville.
Transylvania: Dr. Goode Cheatham, Brevard.
Jackson: Dr. D. D. Hooper, Tuckasegee.
Macon-Clay: Dr. Fred. L. Siler, Franklin.
Cherokee: Dr. S. C. Heighway, Murphy.
Graham: Dr. R. J. Orr, Robbinsville.

The annual address of the President, delivered before the general meeting at the morning session was called up and on motion the following committee was appointed

*County Society not organized.

thereon: Drs Thos. S. McMullan, Thos. E. Anderson, Albert Anderson.

Dr. Way presented the annual report of the Secretary as follows:

GREENSBORO, N. C., May 23, 1905.

To the President and Members House of Delegates, Medical Society of North Carolina:

GENTLEMEN: In a few brief words I present you this report as your Secretary—my second since the reorganization of the Society.

In doing so I wish to congratulate you upon our continued growth and prosperity.

At the meeting in Raleigh one year ago it was my pleasure to report when we had been one year under the new Constitution the organization of 73 counties up to that date.

Since then there have been organized additional county societies until now we have in North Carolina 86 local societies, including in their membership almost all of the physicians actively engaged in practice in 92 of the 97 counties of the State.

At present only the counties of Alleghany, Chowan, Hyde, Jones, Tyrell, remain without a local organization of their medical men.

Since our last meeting Charters have been issued to the following County Societies:

Lenoir: President, R. W. Wooten, Kinston; Secretary, W. F. Hargrove, Kinston, May 21.

Surry: President, J. B. Smith, Pilot Mountain; E. M. Hollingsworth, Mt. Airy, Secretary June 20.

Carteret: Pres. C. N. Mason, Harlow; Secretary, C. S. Maxwell, Beaufort, September 24.

Washington: Pres. W. H. Hardison; J. L. Hassell, Creswell, June 21.

Pamlico: P. G. S. Attmore, Stonewall; H. P. Underhill, Secretary July 30.

Gates: Pres. E. F. Corbell, Sunbury; Geo. C. Brooks, Sunbury, October 14.

Rockingham: C. B. McAnally, President, Madison; Secretary, G. M. Ivy, Wentworth, August 21.

Stanly: T. A. Hathcock, President, Norwood; J. M. Lilly, Secretary, Norwood, August 1.

Durham: A. Cheatham, President; Geo. H. Ross, Secretary, both of Durham.

Bertie: Pres. Wayland Mitchell, Lewiston; Secretary. E. B. Horton, Aulander, January 8, 1905.

Warren County Society: President, Dr. Chatham.

In addition to the organization and chartering of the above some interest in the matter has been exhibited by the profession in some of the other counties and is it more than likely that ere the end of the year that additional county societies will be organized.

But the work of organizing the County Societies may now be considered as practically finished, and from now on every energy should be directed to perfecting the county organizations and bringing the doctors composing them into closer, more sympathetic relations, for only in the cultivation of such relations can the full strength of the profession be developed. To that end we should all strive.

While the work of all the county societies is not conducted with that systematic, earnest spirit which invites success, yet the majority of them are doing work that has been needed in the local profession for years and I am sure the influence of the county societies in promoting a better feeling among the members of the profession is manifest.

Most of them meet monthly, a very few semi-monthly, a few bi-monthly, one or two quarterly and there are a very few that meet rarely or at irregular intervals or not at all. Of course it is very evident to any one that in the more sparsely settled counties with perhaps only half a dozen legal practitioners, the meetings can not be conducted with the regularity which characterizes the society located in our largest cities.

The question of a fee-bill has agitated several of our Societies the past year and I have often been appealed to for my opinion relative to various questions which might be developed in this connection.

I have always taken the ground that a fee-bill was a most excellent institution if merely suggestive or permissive, but have advised against the adoption of "iron-clad fee bills" believing that all schedules of professional fees should possess sufficient elasticity to enable the professional gentleman to make use of them to his own advantage and likewise never to the detriment of suffering humanity.

My correspondence has been much larger the past year than the first year of work under the new Constitution—frequently a dozen letters relatively to Society affairs coming in a single mail—but I have endeavored to give as much of my time as was needful to assist the gentlemen making enquiries to receive the information desired.

The integrity of our State medical laws yet writhing under the severity of the learned Chief Justice's decision, were attacked by some of our friends during the winter in an effort to promote the cause of irregular medicine. Prompt action on the part of the officers of the organized profession with concerted and organized action

by the membership of the County Societies throughout the State, I am pleased to say happily defeated these attempts. In this connection it is well to remember the regular medical profession of North Carolina has been in the past peculiarly favored in that there has been entrusted to our care responsibilities greater than in most States—there is no need for me to say the having of these responsibilities should render us at all times mindful to do our full duty toward the people of the State that none of our valuable prerogatives be lost. Discretion, tact and common honesty coupled with the scientific spirit in medicine which prompts the true physician to be a true man and a good citizen will continue to constitute our safeguard against such attacks in future—let none of us believe they will not be made, but rather let us look well to our local organizations that when an attempt is made to enact medical legislation hurtful to the best interests of the people of this commonwealth, the voices of a united profession will be heard and speaking in no uncertain tones that will give assurance that all's well to timid legislators.

Dr. Way called up the matter of the adoption by this body of the resolution of the State Board of Medical Examiners relative to the vital importance of a proper preliminary education for students of medicine was called up but action thereon was deferred until the copy of the resolution in writing could be presented to the House.

Dr. E. T. Dickenson presented the following which he moved as an amendment to the Constitution of the State Medical Society:

Resolved, that the physicians of the State Board of Health and the State Board of Medical Examiners be added to the House of Delegates.

Favored by Dr. J. A. Burroughs.

Opposed by Drs. Murphy and McMullen.

Motion to pass the resolution and place the amendment on the way for consideration by the component societies defeated by a large majority.

Motion carried to dispense with formal reports from the county societies this session.

On motion a recess of three minutes was declared by the President to enable the members of the House from the various Councillor Districts to get together and designate their member of the Committee on Nominations.

Business being resumed the following were designated by their respective districts to serve as Committee on Nominations.

First District—Dr. Oscar McMullen.
Second District—Dr. Jas. M. Parrott.
Third District—Dr. Frank H. Russell.
Fourth District—Dr. Albert Anderson.
Fifth District—Dr. S. P. J. Lee.
Sixth District—Dr. Sam D. Booth.
Seventh District—Dr. S. S. Royster.
Eighth District—Dr. D. A. Stanton.
Ninth District—Dr. P. L. Murphy.
Tenth District—Dr. J. Howell Way.

Dr. T. S. McMullan introduced a resolution relative to the matter of uniformity in professional fees for Old Line Insurance Examinations, which after some discussion by Drs. Knox, J. Stevens Brown, Burroughs, Oscar McMullan, W. H. H. Cobb, Jr., Kent, Albert Anderson, and the offering of various amendments and substitutes was referred to a special committee, on motion of Dr. Knox, which committee is to carefully consider the whole matter and report to the House later in the session.

President Tayloe designated the following Committee on Insurance Examinations: T. S. McMullan, A. W. Knox, James A. Burroughs.

On motion a recess was taken until 10 a. m. Wednesday.

WEDNESDAY MORNING, MAY 24.

The House of Delegates met in Benbow Hall at 10:30 a. m. Business being resumed Dr. T. S. McMullan for the Committee on President's Address, reported.

The committee appointed to consider the President's Address, and report on its recommendations, submit:

We congratulate the President of the Society upon the timely suggestions with which his address is replete, and especially do we bear testimony to the practical and succinct and clear statements with which it abounds.

Touching the question of the establishment of general hospitals and sanitaria, while we heartily agree with the conclusions reached, and recommend on the part of all a careful study of the suggestions contained, we are frank to say that this matter, being primarily of local import, can be best worked out in each individual community by those most nearly concerned.

We think that a general recommendation should be given by our Society to the Governing Board of each county in the State as to the expediency of establishing isolating hospitals; especially do we think this necessary at this time, in view of the present prevalence in North Carolina of a communicable disease of such a nature as to not only now entail great, and, we may say in many instances unnecessary expense, but which, if not checked by proper isolating measures, will produce still further financial depletion and physical distress.

We ask the thoughtful consideration of

all our members to the suggestions of this address, and a cultivation by them of the interest now being generally manifested on the part of the public toward the more general establishment of these benificent institutions; and as an aid to individual effort and to further promote general interest we recommend a general distribution of the President's address by this Society at its expense.

Finally, we heartily concur in and commend the utterances contained relative to the efficient work of the officers of the Medical Society of the State of North Carolina. We feel that the profession of medicine in this State should be congratulated that they have as their highest exponent of thought and ethics, an organization which to-day presents itself a healthy, vigorous and harmonious body, and for whose future we see such hopeful signs.

(Signed) Thomas E. Anderson.
Albert Anderson.
Thomas S. McMullen.

Adopted.

Dr. Way, for the Committee on Nominations, presented the following names for the various offices and Committees of the Society:

President—Dr. Edward C. Register, Charlotte.

First Vice-President—Dr. L. B. McBrayer, Asheville.

Second Vice-President—Dr. W. H. H. Cobb, Jr., Goldsboro.

Third Vice-President—Dr. W. O. Spencer, Winston.

Orator—Dr. James M. Parrott, Kinston.

Essayist—Dr. Thomas S. McMullan, Hertford.

Leader of Debate—Dr. Sam'l D. Booth, Oxford.

Members House of Delegates American Medical Association—Drs. J. Howell Way, Waynesville; James A. Burroughs, Asheville.

Committee on Public Policy and Legislation—Drs. R. H. Lewis, Raleigh; Geo. G. Thomas, Wilmington; P. L. Murphy, Morganton; Edward C. Register, (ex-officio) Charlotte; J. Howell Way, Waynesville.

Committee on Finance—Drs. D. A. Stanton, High Point; C. J. Sawyer, Windsor; S. P. J. Lee, Dunn,

Committee of Publication—Drs. J. Howell Way, Waynesville, (ex-officio); Geo. W. Pressly, Charlotte; H. McKee Tucker, Raleigh.

Committee of Scientific Work—Drs. R. H. Whitehead, Chapel Hill; O. C. Daniels, Oriental; J. Howell Way, Waynesville, (ex-officio.)

Committee on Obituaries—Drs. C. M. Poole, Craven; H. H. Harris, Wake Forest; Kemp P. Battle, Jr., Raleigh.

Delegates to Virginia Medical Society—Drs. Sam'l D. Booth, Oxford; Cyrus Thompson, Jacksonville; J. B. Knight, Williamston; J. E. Grimsley, Greensboro; R. A. Whittaker, Kinston.

Delegates to South Carolina Medical Society—Drs. J. R. Gordon, Jamestown; D. J. Hill, Lexington; Ben S. Herring, Wilson; W. R. Kirk, Hendersonville; D. A. Garrison, Bessemer City.

Delegates to Mississippi Valley Medical Association—Drs. R. E. Mason, Charlotte; J. A. Stevens, Clinton; S. M. Mann, Moyock; J. A. Turner, High Point; W. P. Horton, North Wilkesboro; H. H. Dodson, Greensboro.

Members State Board of Health—Drs. George G. Thomas, Wilmington; Thomas E. Anderson, Statesville.

Moved and seconded the report be received and the Secretary be authorized to cast the ballot of the Society for the officers and committees as presented by the committee. Carried.

The Secretary cast the ballot as ordered.

Dr. Murphy asked for a ruling of the Chair or the House on the question as to the amount the County Societies should pay the Treasurer of the State Society for each of its members?

The President ruled that $2.00 annually was the proper amount. Agreed to without objection.

Dr. J. M. Baker offered the following amendment to the Constitution which was after some little discussion ordered to lie on the table.

(Later Dr. Baker withdrew the resolution and requested it be not referred to the County Societies which was agreed to.)

When amended Art. V and VIII will read as follows:

Art. V. The House of Delegates shall be the legislative and business body of the Society and shall consist (1) of delegates elected by the component County Societies (2) ex-officio, the officers of the Society as defined in this Constitution, "provided that any member of the Society shall have the privilege of participating in all the deliberations of the Session of the House.

Art. VIII. As at present with the following clause stricken out, "but no delegate shall be eligible to any office named in the preceding section, except Councillor."

Dr. T. S. McMullan, for the Special Committee on Insurance Examinations, presented the following:

Resolved, That the House of Delegates of the Medical Society of the State of North Carolina do hereby adopt and recommend

to the General Meeting of the State Society the adoption of the following preambles and resolutions:

Whereas, The fee of $5.00 for each examination of an applicant for life insurance (including a chemical analysis of urine, or even when no urinalysis is required) whatever amount of insurance is applied for, and an additional fee of $5.00 for each microscopic examination, is in the opinion of the Society both just and reasonable; and,

Whereas, a number of old line life insurance companies have recently sent to the members of this Society in many parts of the State a schedule of fees for life insurance examinations much below those stated above, and have declared that after a certain specified date they will not pay to their examiners fees larger than those prescribed by themselves; therefore,

Resolved, That the Medical Society of the State of North Carolina denies the right of life insurance companies to fix the fees which medical men shall charge for their services, and does hereby urgently recommend that each of its component County Medical Societies shall maintain the schedule of fees indicated in the first preamble above for the reasons stated therein, and shall reserve to itself the right to fix fees for all services rendered by its members to any and all persons or corporations.

Resolved, That we do not deem it ethical to accept any compensation from any life insurance solicitors or life insurance examinations supplementary to the fees charged the company.

Resolved, That in the opinion of this Society it is incompatible with the principles of medical ethics adopted by it for members of one County Medical Society to go into other counties and examine applicants for insurance at a lower rate than the fees fixed for said services by the Medical Society of the County or Counties to which said members shall go.

Resolved, That the Secretary of the State Medical Society be instructed to send to the Secretary of each County Medical Society a copy of these preambles and resolutions, and shall urgently suggest prompt action on the part of each County Society.

(Signed), THOMAS S. McMULLAN,
A. W. KNOX,
JAMES A. BURROUGHS,
Special Committee on Insurance Examinations.

On motion the Report of the Committee was unanimously adopted and the Secretary instructed to report the action of the House of Delegates to the General Meeting without delay and request similar action on the part of the General Meeting. (The Secretary did so and the General Meeting unanimously adopted it.)

Dr. Whittaker suggested that he had heard some expressions of disapproval from some excellent and worthy members of the Society of the too frequent and conspicuous presence of non-members of the Society and asked for information as to how gentlemen outside the Society and residing in other States were in attendance?

Dr. Baker called his attention to the fact that the Constitution provided for "Guests" by invitation of the Society or the Council.

Dr. Way called attention to the following preamble and resolution recently adopted by the State Board of Medical Examiners and moved the adoption of the same by the House of Delegates:

Whereas it is the observation of the members of the Board of Medical Examiners that young men who have not had sufficient academical training and education, before entering upon the study of medicine, are as a rule not well prepared and stand poor examinations for license to practice medicine.

Resolved, That the Board of Medical Examiners do earnestly urge, that the members of the North Carolina Medical Society and the medical profession of the State shall use their influence to the end, that young men who have not had proper preliminary education shall not enter upon the study of medicine.

Motion seconded and carried without dissent.

Dr. R. H. Whitehead moved the farther sittings of the House of Delegates at this session be limited to from 9 a. m. to 10 a.m. Seconded by Dr. T. E. Anderson. Carried.

A recess was then ordered until 9 a. m. Thursday.

THURSDAY MORNING, MAY 25.

The House of Delegates met in Benbow Hall as per recess of day previous.

Dr. Way for the Committee on Nominations reported Charlotte as the choice of the committee for place of next meeting and moved the adoption of the report. Motion seconded.

Dr. Whittaker moved to substitute Morehead City. Substitute seconded.

Vote being taken Dr. Whittaker's substitute declared lost.

Vote being had on the committee's nomination of Charlotte as the place of meeting in 1906 it was adopted.

Dr. R. L. Gibbon was named as the State Society Member of the Local Committee of Arrangements for the session of 1906.

Dr. Hill presented the following resolution and moved its adoption:

Resolved, That after the year 1906 the date of the regular meetings of the Medical Society of the State of North Carolina be changed to a date in the late fall or early winter.

On motion of Dr. Way, seconded by several, the resolution was laid on the table indefinitely.

Dr. Thomas E. Anderson presented the following report of the Finance Committee:

We, your committee on finance, desire to submit the following report, after a careful review of the books of the Treasurer:

Balance of monies on hand after last meeting, May 27, 1904 - $2,110.32
Collections during year 1905 - - - 2,020.00
Which being added to balance on hand amounts to - - - - - - - - - 4,130.32

We find the disbursements for all purposes, the items of which we have carefully gone over amounts to $1,687.71. This deducted from receipts leaves a balance in the hands of the Treasurer of $2,442.61.

In submitting above report we take pleasure in bearing testimony to the systematic and efficient manner in which the interests of the Society has been conserved by the Secretary and Treasurer of the body.

We recommend that the salaries of said officials remain as last year, $300 for Secretary and $150 for Treasurer.

Respectfully your committee,
THOMAS E. ANDERSON.
JAMES A. BURROUGHS.

On motion the report of the Committee was adopted.

Motion being made the Chair designated Drs. B. D. Booth and R. A. Whittaker a Committee to escort and introduce the President-Elect, Dr. Edward C. Register, to the General Meeting.

There being no farther business the House of Delegates adjourned sine die.

DAVID T. TAYLOE, President.
J. HOWELL WAY, Secretary.

The Secretary then announced the following appointments of Chairmen of Sections for the 1906 meeting in Charlotte and urged the gentlemen receiving the appointments to use every effort possible to have a good selection of well-written papers for the 1906 programme:

Dr. Lawrence E. Holmes, Biltmore, Anatomy and Surgery.

Dr. J. Clegg Hall, Boardman, Materia Medica and Therapeutics.

Dr. E. C. Boyette, Mt. Holly, Practice of Medicine.

Dr. S. A. Stevens, Monroe, Physiology and Chemistry.

Dr. Cyrus Thympson, Jacksonville, Obstetrics.

Dr. C. W. Mosely, North Wilkesboro, Gynæcology.

Dr. W. F. Hargrove, Kinston, Medical Jurisprudence and State Med.

Dr. Thos. R. Little, Greensboro, Pathology and Microscopy.

Dr. Robt. L. Gibbon, Charlotte, Railway Surgery.

Dr. E. H. Brooks, Reidsville, Pædiatrics.

The Meeting of the Board of Medical Examiners of North Carolina.

The Board of Medical Examiners met in the Benbow at Greensboro, on Wednesday, May 17th. The usual routine business was taken up and the following order of examinations were decided upon:

Thursday, 9 a. m.—Physiology by Dr. Laughinghouse.

Thursday, 3 p. m.—Materia Medica by Dr. Battle.

Thursday, 8 p. m.—Chemistry by Dr. Pressly.

Friday, 9 a. m.—Obstetrics by Dr. Fletcher.

Friday, 3 p. m.—Surgery by Dr. Russell.

Saturday, 9 a. m.—Anatomy by Dr. Parrott.

Saturday, 3 p. m.—Practice by Dr. Kent.

There were 133 applicants for license representing 39 different medical colleges. One of the applicants withdrew, 40 failed to make the required per cent., 4 were held over and 88 were granted license. The names of the successful applicants are as follows:

J. Peebles Proctor, Williamston; Henry J. Garrigues, Tryon; Baird U. Brooks, Nashville; Baxter S. Moore, Charlotte; Brodie C. Nalle, Charlotte; Baxter M. Haynes, Cliffside; Joseph W. Halford, Chalybeate Springs; Joseph F. Blake. Chadbourne; Isaac J. Archer, Black Mountain; Lorenzo S. Webb, Windsor; John B. Cranmer, Chapel Hill; Joseph W. Summers, Davidson; Owen Smith, Asheville; Herbert E. Rowe, Newton; John C. Dye, Fayetteville; Bertie O. Edwards, Samel Springs; Cyrus J. McCombs, Mint Hill; William C. Mebane, Mount Airy; John S. Harrison, Elm City; Henry B. Perry, Sweet Water; Harley G. Brookshire, Emma; James L. Wyatt, Wadesboro; Alpheus W. Disosway, Newbern; Milton R. Gibson, Gibson; Edward McQ. Salley, Tryon; Phillip W. Flagge, Greensboro; Edward V. Harbeck, Gem; Harry A. Eberle, Greensboro, William P. Reaves, Greensboro; Wilbur A. McPhaul, Ashpole; James M. Wells, Shelby; James F. Carraway, Asheville; Emmette E. Walker, Snow Hill; Laurie J. Arnold, Sanford; William C. Bostic, Forest City; J. Floyd Martin, Yaddinville; Ralph S. Stevens, Smithfield; Quinton H. Cooke, Aulander; Thomas G.

Basnight, Stokes; William D. Witherbee, Charlotte; Ashley M. Benton, Evergreen; Carl W. Sutton, LaGrange; Joseph H. Norman, Brinkleyville; Joseph N. Moore, Wilson; Mont R. Farrar, Greensboro; Edward L. Thomas, (col.) Charlotte; Andrew J. Christian, (col.) Winston-Salem; Lewyn E. McCauley, (col.) Raleigh; Jno. E. Baxter, (col.) Rocky Mount; John L. Carroll, Asheville; Jere E. Cocke, Asheville; John Donelly, Charlotte; Leone B. Newell, Newell; Isaac E. Burnett, White Rock; Jefferson F. Landen, Chinquapin; Charles W. Woodson, Salisbury; James J. Philips, Tarboro; Ivan P. Battle, Rocky Mount; Julius J. Caldwell, Jr., Salisbury, Joel Whitaker, Raleigh; William A. Brumfield, Renan, Va.; John B. Williams, Jr., Oxford; W. Talmage Long, Roxboro; George S. Hill, Marblehead, Mass.; Wm. Moncure, Raleigh; Squire F. Tillotson, King; Cassius H. Morgan, Higgins; Fielding L. Ashton, Richmond, Va.; Delos D. Hooper, Tuckaseigee; Eustace H. Sloop, Mooresville; George M. Cooper, Clinton; William D. Deshazo, Spencer, Va.; John S. Gibson, Gibson; Archibald W. Graham, Charlotte; Frisby T. McKaig, Robbinsville; DeLacy Faust, Liberty; Arthur B. Croom, Maxton; Oswald O. Kafer, Newbern; Jas. A. Stone, Shallotte; Edgar C. Person, Pikeville; Kemp P. B. Bonner, Aurora; Joseph H. Saunders, Washington; Alice E. Johnson, Southern Pines; Robert S. Carroll, Asheville; Richard C. Jacox (col.) Franklin, Va.; Joseph Akerman, Wilmington; James A. Duguid, Newbern; Charles M. Clodfetter, Lexington.

The first honor was won by Dr. Leone B. Newell of Newell, with a general average of 95 and 6-7.

The second honor was won by Dr. Jas. J. Philips of Tarboro, with a general average of 94 and 4-7; the third place was taken by Dr. Eustace H. Sloop of Mooresville, with a grade of 93 and 3-7.

Review of Southern Medical Literature.

Texas Medical News, March, 1905.

Gall-stones. Report of a Case.— Dr. H. A. Barr points out how difficult the diagnosis of gall-stones may be in some instances. It is now only a little more than a quarter of a century since Marion Sims did the first planned operation for gall-stone. Since that time many able men have given this disease much careful study, and as a result, we now have quite a different array of symptoms which are now considered of sufficient importance, that with the presence of them alone we may safely assert the presence of gall-stones, At the time Sims made the first operation for gall-stones there were three recognized classical symptoms which were considered pathognomonic of this disease, namely, marked jaundice, biliary colic, and the passage of gall-stones with the fæces; other symptoms of course being given, but they were considered of less value or importance.

The following symptoms are now looked upon as essential to the diagnosis of gall-stones by the more recent authorities: 1. Digestive disturbances, a feeling of weight or burning in the vicinity of the stomach after eating, gaseous distention of abdomen. 2. A dull pain extending to the right from epigastric region around the right side about on a level with the tenth rib passing to a point near the spine and progressing upward near the shoulder blade. 3. A point of tenderness upon pressure between the ninth costal cartilage on the right side and umbilicus. 4. A history of having had one or more attacks of typhoid or appendicitis. 5. In many of these cases there is a slight tinge of yellow in the skin not sufficient to be recognized as icterus, but still sufficient to be perceptible upon close examination, especially when the patient is not feeling well, or when he complains of feeling bilious. 6. There is usually an increase of liver dullness. 7. There may be swelling of variable size opposite end of the ninth rib. 8. The patient may have been for more than a year in a state of chronic invalidism, making it impossible for him to follow his occupation or enjoy life in any way.

The case reported was seen by the author about the middle of the fifth year of his illness. Patient was extremely emaciated, with drawn and pinched features, eyes sunken, all indicating much suffering and the existence of a serious malady. Skin dry and scaly, temperature 99, pulse 110, tongue red and fissured, abdomen very flat, heart and lungs apparently normal, liver somewhat enlarged, which was ascribed to malaria. He complained of dull and continuous pain in the region of stomach and lower bowels, urine at times somewhat scant sp. gr. 1020 but otherwise normal, patient had never suffered from jaundice or any severe attack of colic. At this time he could only take the smallest amount of liquid and predigested liquid food one or two teaspoonfuls at a time, more than this would be rejected by the stomach in from fifteen minutes to half an hour, and notwithstanding the small quantity taken and the ease with which it should have been digested the greater part passed as when it entered the mouth. His condition progressed slowly until he died after five years of invalidism.

At post-mortem the gall-bladder was found to be about one and one-half inches in diameter and three inches long. It was necessary to make an incision almost its entire length in order to remove the stones, and so closely were they packed together that considerable force was necessary to separate them. The inside of the bladder was almost perfectly dry, there being only a slight trace of mucus on its walls. There were forty-four separate stones, any one of which was too large to pass the common duct without considerable distention. The walls of the bladder and ducts were thickened, lumen lessened the elasticity lost which together with the size of the stones possibly to a certain degree explains the absence of biliary colic in this case.

Southern Practitioner, March, 1905.

Etiology and Pathology of Atrophic Cirrhosis of the Liver.—Dr. William Litterer calls attention to alcohol as an etiological factor in cirrhosis is not borne out that alcohol alone can cause the slightest fibrous tissue proliferation by experiments on animals; the most common lesion which has been produced experimentally was a fatty metamorphosis of the cells of the liver, the heart muscle and kidney. This lesion quickly disappeared after stopping the alcohol. Adamie, of Montreal, conceived the idea that atrophic cirrhosis was in reality due to an autointoxication in which the deranged products of intestinal indigestion are produced by some microorganisms, probably of the colon group, liberating their toxins which are absorbed and carried to the liver, thereby stimulating the cells to new formation of fibrous tissue. He based his opinion upon the finding of the colon bacillus with great frequency in cirrhosed livers of animals dead of Picton cattle disease. The injection of the colon bacillus into the liver of animals, however, failed to produce cirrhosis.

Boix, of France, conceived the idea not unlike the idea Adamie, that hepatic cirrhosis was due to absorption of the deranged metabolic products of intestinal indigestion. He, therefore, treated a large number of animals with lactic acetic, butyric and valerianic acids, and obtained typical cirrhosis with considerable regularity. He then combined the alcohol with these products and again obtained true atrophic cirrhosis.

The most important causes usually given are toxic products of faulty matabolism in gout, diabetes and rickets, syphilis, malaria, lead tuberculosis, carcinoma, cardiac diseases, eating of spicy foods, senile atrophy, etc. With all these causes mentioned, we still have cases which would not come under any of the above headings. Even in young children atrophic cirrhosis is not a very rare one, and out of that number in the vast majority of cases, the causes remain unknown.

As to the pathology the author believes that only the fibrous tissue is formed first, and that the liver cells become atrophied secondarily from pressure, although many good authorities believe that the liver cells first undergo necrosis and are replaced by fibrous tissue.

Nashville Journal of Medicine and Surgery, March, 1905.

The Management of Normal Labor Together with the Accidents and Complications in Connection Therewith.—By Chas. R. Robertson.

Mobile Medical and Surgical Journal, March, 1905.

Influenza.—By L. W. Roe, M. D.

Memphis Medical Monthly, March, 1905.

Puerperal Eclampsia.—By Charles A. Turner, M. D.

The Puerperism.—By A. McSwain, M.D.

Water Internally an Aid to Secretion, Elimination and Digestion.—By T. J. Happel, M. D.

The Texas Medical Gazette, March, 1905.

Typhoid Fever as We See It.—By J. R Calloway, M. D.

New Orleans Medical and Surgical Journal, April, 1905.

Remarks on Facial Spasm with Report of a Case of Rare Form of This Affection and a Note on the Treatment.—Dr. Roy W. Van Wart says that the spasm may be tonic or clonic. Tonic spasm is seen in tetantus and in the contracture following facial paralysis due to central lesions. The clonic form is seen in epileptic and hysterical attacks.

There are two great types. Those which have a basis in some physical disturbance known as habit spasm, mimic spasm, or the convulsif, and those which arise from some organic or reflex cause. You may divide the second group into two classes; first, those that are the result of some lesion in the course of the facial nerve, its nucleus or cerebral connections, and secondly, those which arise from some peripheral irritation in the region of one or the other of the cranial nerves, most frequently the second or the fifth, and those from which no cause can be found and for want of a better term are called idiopathic. The two cases reported illustrate very well the two general forms of this disease.

Southern Practitioner, April, 1905.

Remarks on Clinical Examples of Calculus Pyonephrosis, Cholectystastomy for Gall-stones, and Gangrenous Appendicitis.—By Wm. D. Haggard, M. D.

The Medical Recorder.

A Case of Traumatic Tetanus with Trismus. Recovery.—Dr. R. Meugen reports a case in a boy, age 12, who had a lacerated wound of the middle finger of left hand, caused by a toy pistol. The wound was thoroughly cleaned and dressed. About three weeks after the accident the boy was taken with general tetanic attack. Temperature 103, in the axilla pupils dilated, very restless and pain in region of diaphragm.

Antitoxin was injected between the scapula. Later used morphia to quiet patient. Patient objected to curettement of finger. Retention of urine requiring catheterization. The convulsions were so severe that the patient lacerated his tongue accompanied with severe hemorrhage. Adrenlin was used to control this, nourished by rectal enemata. On third day the entire cicatrix was dissected with the other tissues. During this procedure took away some burnt powder and opened a periosteal abscess. One month from the first appearance of tetanus the boy was apparently well, showing no signs of paralysis and no rigidity about the muscles of the jaw.

Memphis Medical Monthly, April, 1905.

Mitral and Aortic Incompetency with Special Reference to Therapeutics.—Dr. Ralph N. Greene, in dealing with cardiac disease, deems it highly essential that one should be familiar with the physiological as well as the pathological mechanisms transpiring within the cardiac cycle. If this were given more thought the persistent, reckless, and often imperical administration of digitalis without regard to the valve affected would not be practiced so very indiscriminately, but would only be indulged in from a viewpoint of rational therapeutics.

In mitral regurgitation during each systolic contraction of the heart muscle a certain amount of blood is forced back through the light auriculo ventricular orifice. The auricle receives this regurgitated blood together with the normal amount from the pulmonary circulation. Owing to the density of its structure compensitory hypertrophy is not perfect, and pulmonary embarrassment soon follows. In accordance with the principle that there must be a direct ratio between pressure and resistance, the right ventricle responds to the emergency of the occasion, and with extra power to its contractions relieves, in a measure, the pulmonic stasis at the expense of becoming hypertrophied. Owing to the powerful contractions of the right ventricle the left ventricle becomes hypertrophied, and is for a time capable of executing its task. Sooner or later, however, under this interventricular strain the tricusped valve begins to leak and then follows the pulmonic oedema, the bronchial irritation, the hyperemic liver, the chronic gastritis, the enlarged spleen, the uterine disorders, the renal congestion, the pressure of hemorrhoids, the cerebral anemia, and at last, death as a climax to the existing condition, briefly expressed in words venous stasis. In the majority of cases the aortic orifice is much larger than is the mitral, hence the amount of blood thrown into the systemic circulation is far greater than the amount regurgitated into the left auricle. Under the influence of digitalis the right heart is endowed with greater contractibility and is more capable of resisting the regurgitation and in company with the left heart equalizes the circulation and aids in absorbing the effusions. In some cases in which there is an extremely patulous mitral orifice our efforts with the use of digitalis only meet with sad disappointment. In a great majority of cases, however, it is a conceded fact that digitalis is clearly and rationally indicated.

In aortic insufficiency considering that the nutrition of heart is supplied by the blood passing through the covonary vessels during diastole, in these cases we, therefore, have the cor bovis or beef heart. But in mitral disease this increased blood supply is not present as in aortic regurgitation.

Arteriosclerosis is usually present in these cases and with a heart muscle with superabundance of energy, as in aortic regurgitation, and the back pressure of the sclerosed arteries causes an increased intraventricular strain which soon causes the mitral valves to give way before it.

Therefore, shall we give digitalis to the already active heart and break down the mitral valve, or shall we try and lower this interventricular pressure by giving vasodilative and cardiac sedatives?

Atlanta Journal-Record of Medicine, April, 1905.

Broncho-Pneumonia in Children.—Dr. Louis C. Rouglin concludes this article with the following outline of treatment of these cases:

1. Clear the field of operation. This is accomplished by the use of small doses of calomel followed by full dose of castor oil.

2. Correct indigestion, regulate the food to avoid gas and fermentation. The heart and lungs cannot work well when compressed by an over-distended colon and

stomach. Should the condition exist high rectal irrigations with hot saline solutions will usually bring relief.

3. Fresh air, cool and flowing. Put child in a large room with plenty of sunlight and keep the eyes away from the bright light. The temperature of the room should be inversely to temperature of the child. Fresh air stimulates the heart, reddens the blood, improves indigestion, quiets restlessness and aids against toxemia. A child with lame lungs needs it all—give it to her all the time and plenty of it, keep the child's feet warm and head cold.

4. Water. Give plenty of water, but in small quantities. Let the water be cool and fresh. For a child give about four grains of urotrophin during the day in water; it acts as an antiseptic and facilitates elimination.

5. Absolute rest and quiet is essential. Do not bring outside influences to a patient who is nervous, it makes him more so, sleep comforts the patient, it should not be disturbed.

6. Promote general comfort. This can be accomplished by frequent change to dry warm garments to avoid maceration of the skin, allowing long restful sleep, by not too frequent feedings and dosings, by sponging the face and wetting the lips and by doctor and attendants being congenial and tactful.

7. Heart stimulants. When the gas collecting in the stomach is properly cared for, heart stimulants will, as a rule, not be indicated. When indicated whiskey, strychnine, one or both, judiciously given, will meet the indication.

8. Make use of sponging or cold applications to reduce temperature. Use no antipyretics to allay nervousness. A gram of phenacitin may occasionally be given, coal tar preparations should not be used for the fever. When pain is present in the chest an application of antiphlogistine will relieve it. I use it only when pain is complained of. A hot foot bath will usually insure a good nights rest. Use no opium for the cough when distressing. Creosote by inhalation will suffice and is preferable to internal medication.

9. Avoid over-crowding of room constriction of chest, swathing poultices, maceration of child's skin, disturbing sleep, over-feeding and over-drugging, and above all avoid opium and coal tar products. Treat the case the same as you would a case of toxemia occurring elsewhere in the body and the results will in all possible cases be favorable.

The Southern Clinic, April, 1905.

Does Appendicitis Demand Operation in all Cases.—By W. R. D. Blackwood, M.D.

Texas Medical Journal, April, 1905.

The Care of the Insane in Texas.—By M. L. Graves, M. D.

The American Practitioner and News, April, 1905.

Acute Abdominal Disturbances, Are They Ever Functional and Temporary or are They Always Organic and Inflammatory.—By Ewing Marshall, M. D.

Albuminuria: Its Significance and Its Detection.—By Wm. A. Jenkins, M. D., Louisville, Ky.

The Texas Medical News, April, 1905.

Manual Manipulation as an Aid to Parturition —By A. C. Gray, M. D., Bonham, Texas.

Nashville Journal of Medicine and Surgery, April, 1905.

Colles Fracture.—By. J. W. Brandon, M. D.. Clarksville, Tenn.

Southern Medicine and Surgery, April, 1905.

Movable Kidney: Its Causes, Symptoms and Diagnosis.—By Blanton L. Hellsman, M. D., Richmond, Va.

Tuberculous Meningitis.-By. S. D. Acuff, M. D., Knoxville, Tenn.

Maryland Medical Journal, April, 1905.

Intubation Experiences.—By Wm. T. Watson, M. D. Read before the section on laryngology and rhinology Medical and Chirurgical Faculty of Maryland, February 24, 1005.

Abdominal Massage: Indications and Technique.—By Reni Taner, M. D., Baltimore, Md.

Virginia Medical Semi-Monthly, April 7, 1905.

A Contribution to the Study of Dislocations of the First Carpo-Meta Carpal Joint.—By D. Percy Hickling, M. D., Washington.

Cocaine in Surgery, with Special Reference to its Use in Operations for the Cure of Hernia.—By J. Shelton Horsley, M. D., Richmond, Va.

Some Observations in Typhoid Fever with Report of 153 Cases.—By Hugh G. Nicholson, M. D., Charleston, W. Va.

The publisher of "The Shambles of Science" has withdrawn the book from circulation and offered an apology.

This is the work which was presented as evidence by Mr. C. E. Coleridge, the English antivivisectionist, when he was sued for libel. Mr. Coleridge was found guilty and fined ten thousand dollars, many of the most eminent London medical men testifying that the book contained false statements.

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Intubation of the Larynx.

Steward (Guy's Hospital Gazette) gives a clinical lecture on this subject. This operation is usually done in children for diphtheria or acute laryngitis from catarrh, measles, trauma, etc. The position of the child should be sitting up. The ease gained in introduction of the tube more than counterbalances a possible disturbance of the child from diphtheria. The flange of the tube should point away from the operator, who, with his left forefinger behind the arytenoid cartilage, should lodge the point of the tube on the tip of the finger, and then, with a combined upward movement of the wrist and a downward movement of the arm, carry the tube into the larynx, pushing it home with the left forefinger. In after-treatment it is well to prevent the child pulling out the tube by splinting the arms from the shoulders to the wrist with cardboard or newspaper. In feeding, it is well to start with small quantities of fluid, which may be thickened with arrowroot. If there be difficulty in swallowing, nasal feeding must be instituted. The tube should be removed at the end of thirty-six to forty-eight hours, if possible, during the day, so that the child may be watched. Intubation should not be kept up more than five to six days, since pressure ulcers in the trachea and larynx are apt to form. If the tube cannot be dispensed with, tracheotomy should be performed. Among the dangers and difficulties in the management of the cases are: (1) Coughing up the tube. According to the writer's experience, this rarely happens, and when it does, is not so serious as it is generally considered to be. The child has usually had some sleep, and is in stronger and better condition to stand the resulting obstruction. (2) The tube may get blocked by a piece of membrane. For these cases it is well to instruct the nurse to remove the tube by pulling out the silk. (3) The tube may not relieve the dyspepsia, owing to extension of the membrane beyond the tube. In such cases tracheotomy is the only course, care being taken that the dyspepsia is not due to broncho-pneumonia. Figures of mortality are difficult to obtain, but of thirty-three consecutive cases nine died, the cause of death being in eight cases due to complications, the ninth case dying of syncope d uring intubation. In comparing tracheotomy and intubation, the writer considers the latter easier and simpler, while it avoids "operation," is more comfortable for the patient, and is probably attended with a less mortality, since broncho-pneumonia is less likely to follow.

If You Have a Case of Anæmia

induced by defective nutrition—the result of a chronic digestive weakness, the first thing to do, of course, is to overcome the digestive trouble.

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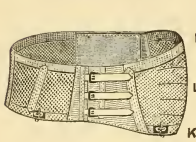

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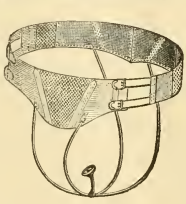

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Prolongation of life is something which should interest every normal person and it is a pleasure to learn that a scientist has at last devised a means to attain this much to be desired end. Dr. Hermann Weber, who recently delivered a lecture before the London Royal College of Physicians, offers an unfailing remedy to insure extreme old age. It but remains to follow his advice to attain to the age of Methuselah. Ignoring minor suggestions relating to temperance, diet, hygiene, bathing, healthful surroundings, moderation in physical indulgence, walking and climbing tours and various other trivial considerations, the doctor's advice is summed up in the following rules: Cultivation of placidity, cheerfulness, and hopefulness of mind, the controlling of the passions and nervous fear, strengthening of the will in carrying out whatever is useful, and the checking of craving for stimulants.

The following items are extracted from a Western medical journal which runs a column of exchange and personal advertisements:

Wanted a bicycle for which will be given a jar containing nine specimens of the appendix vermiformis.

A position is open for an elderly lady with single front tooth to bite holes in Swiss cheese.

Second hand fur coat is wanted by young lady medical student with camel's hair lining.

If the gentleman who deserted his wife and child twenty-two years ago will come back the child will lick the life out of him.

Will the blonde young lady who opened her umbrella last night as she left an up town trolley car kindly return my left eye if it is still adhering to the ferrule of her umbrella.

Little Jacob told his father some facts about the effects of alcohol which he had learned from his lessons in physiology. The old man was not pleased and the next time he met Jacob's teacher he said to her:

"My poy he tolds me dat ven I trink beer der overcoad uf my stummick gits do dick. Uf you bleese, vill you be so kind und dond inderfere in my indernal affairs."

Menopause.

Preceding and succeeding the final cessation of ovulation and menstruation, physical and psychical disturbances of a more or less serious character are frequently observed. Ergoapiol (Smith) because of its tonic effect upon the female generative system and its splendid antispasmodic influences, is of unsurpassed value in the treatment of the various disturbances incident to this period.

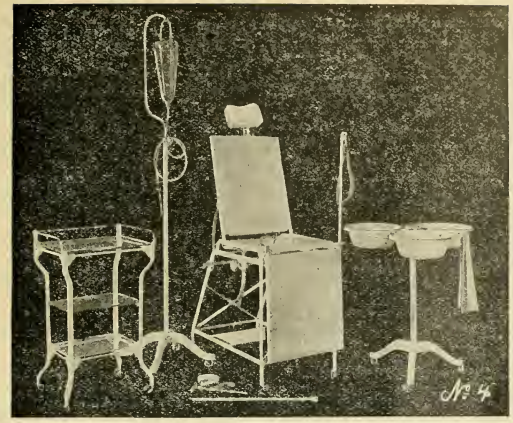
Book Notices.

Welch & Schamberg on Acute Contagious Diseases. A Treatise on Acute Contagious Diseases. By William M. Welch, M.D., Consulting Physician to the Municipal Hospital for Contagious and Infectious Diseases; Diagnostician to the Bureau of Health, etc., Philadelphia, and Jay F. Schamberg. A.B., M.D., Professor of Dermatology and of Infectious Eruptive Diseases, Philadelphia Poly. clinic; Consulting Physician to the Municipal Hospital for Contagious and Infectious Diseases, and Assistant Diagnostician to the Philadelphia Bureau of Health, etc. In one very handsome octavo volume of 781 pages, illustrated with 109 engravings and 61 full-page plates. Cloth, $5.00, net; leather, $6.00, net; half morocco, $6.50, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

The authors, from years of faithful study and abundant clinical experience, are peculiarly well equipped to furnish precisely the practical information which the every-day physician needs, and they have succeeded in presenting this knowledge fully and clearly in a style of diction which makes reading a pleasure as well as a profit. The Philadelphia Municipal Hospital offers almost unlimited opportunities for the consideration of Contagious Diseases, and the work is based upon the personal study of the many patients who come daily under the charge of the authors; thus there have been studied nearly ten thousand cases each of Small Pox, Scarlet Fever and Diphtheria in addition to the very many cases of the other diseases discussed, such as Vaccinia, Measles, Chicken Pox, Rubella, Typhus Fever, etc.

Diagnosis and Symptoms are given the thorough attention they deserve, and as the volume is intended primarily to be a practical guide to the practitioner who may not have had the advantage of a large clinical experience in this field, treatment both medicinal and non-medicinal, hygienic measures, disinfection, etc., are all covered with careful complete details.

In illustrations the book is rich indeed; the pictures alone are easily worth the price of the book; the material was abundant and beautifully clear photographs of patients in the successive stages of the various diseases are used wherever the text can be made clearer thereby. It is a work which will find a readily accessible place on the shelves of every practising physician.



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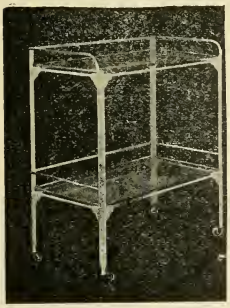

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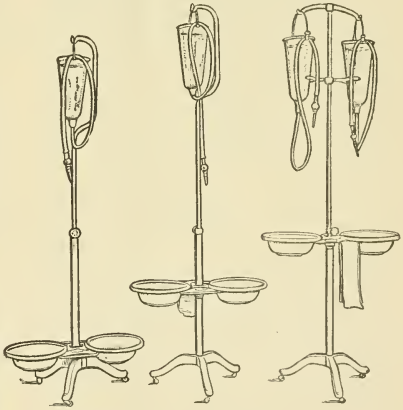

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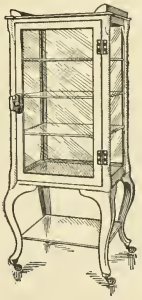

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Clinical Treatise on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By Professor Dr. Carl von Noorden, Physician-in-Chief to the City Hospital, Frankfort, A. M. Authorized American Edition Translated under the Direction of Boardman Reed, M.D., Professor of Diseases of the Gastro-intestinal Tract, Hygiene and Climatology, Department of Medicine, Temple College; Physician to the Samaritan Hospital, Philadelphia, Pa., etc. Part VI. Drink Restriction (Thirst-Cures), Particularly in Obesity. By Professor Carl von Noorden and Hugo Solomon. New York: E. B. Treat & Company. 1905.

This book of Professor von Noorden is a most instructive deliverance upon a subject of the highest practical importance, one which should appeal strongly to both the medical profession and the laity, especially in this country, where hot water drinking and cold water douching have been carried to an irrational and ridiculous, and often very harmful excess, by the advice of irregular practitioners and cranks. In this connection his warnings ought to be timely. Unfortunately not all the physicians realize that not only does every mouthful of surplus food add to the burdens of all the digestive and excretory organs, instead of strengthening the body, but that every superfluous ounce of liquid ingested adds to the labor of the heart and kidneys, besides having for the most part to be forcibly extruded by the stomach into the small intestine before it can be absorbed. It is sad to think how many victims of dilated heart, of dilated stomach, and of Bright's disease have been encouraged to drink themselves to death, and how many victims afflicted with obesity have shortened their lives by continuing excessively fat, with all its discomforts and dangers, to the end of the chapter, waterlogged because of unrestricted drinking. Many persons unquestionably drink too little, of water particularly, but Professor von Noorden has clearly proved that a great many others drink too much. This small book of 86 pages is well worth the reading and should be in the hands of every physician.

Maternitas. A Book Concerning the Care of the Prospective Mother and Her Child. By Charles E. Paddock, M.D., Professor of Obstetrics, Chicago Post-Graduate Medical School; Assistant Clinical Professor of Obstetrics, Rush Medical College. Chicago: Cloyd J. Head & Co., 40 Dearborn Street. Price, $1.25.

The aim of the author in presenting this little work is to aid the prospective mother during her pregnancy, and to guide her in those trying days and weeks after the baby has come and the trained nurse has been dismissed. He has endeavored to explain some of the many perplexing questions which present themselves to her at these times, but which she considers hardly necessary to discuss with her physician. The busy practitioner will find in this book a worthy adjunct to his own advice, especially as it is not intended in any sense of the word as a medical guide. The author has tried rather to impress upon the mother who reads it the importance of co-operating with her physician and early consultation with him on all those matters which properly demand his attention. The book is neatly bound and contains 190 pages and is well indexed.

A System of Physiologic Therapeutics. A Practical Exposition of the Methods, Other than Drug-giving, Useful for the Prevention of Disease and in the Treatment of the Sick. Edited by Solomon Solis Cohen, A.M., M.D., Professor of Clinical Medicine in Jefferson Medical College; Physician to the Jefferson Medical College Hospital, and to the Philadelphia General, Jewish, and Rush Hospitals, etc. Volume XI. Serum Therapy by Joseph McFarland, M.D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College of Philadelphia. Organotherapy by Oliver T. Osborne, M.A., M.D., Professor of Materia Medica and Therapeutics at Yale University. Radium, Thorium, and Radioactivity by Samuel G. Tracy, B.Sc., M. D., Radiologist, New York Skin and Cancer Hospital; Assistant Neurologist, Vanderbilt Clinic, Columbia University, New York City. Counterirritation, External Applications, Bloodletting by Frederick A. Paclard, M. D., Late Physician of the Pennsylvania Hospital. An Outline of the Principles of Therapeutics with Special Reference to Physiologic Therapeutics by the Editor with Addendum on X-ray Therapy and an Index-Digest of the Complete System of Eleven Volumes. Illustrated. Philadelphia: P. Blakiston's Son & Company, 1012 Walnut Street. 1905.

This volume entitled "A System of Physiologic Therapeutics" edited by Professor Solomon Solis Cohen of Philadelphia, is the eleventh and concluding volume of this most excellent system. This volume treats of the newest developments in the art of medicine, the use of anti-toxic and bacteriolytic serums, extracts of organs, internal secretions, radium, X-rays, etc. The editor sets forth the underlying principles of therapeutics, laying especial stress on biologic relations

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of medical problems, and the importance of the physical and chemical components of vital reactions. The article is a condensation and summary of his original teachings on this subject as embodied in his lectures at Jefferson Medical College and Dartmouth Medical College and in addresses before the various medical associations. An index-digest of more than 100 pages, furnishes an epitome of the practical teachings of the eleven volumes arranged for the facility of reference under headings of diseases and significant symptoms (as cough, fever, jaundice, rheumatism, tuberculosis, typhoid etc.), giving brief memoranda of the various methods of treatment applicable, and referring to the volume and page where more elaborate discussion is found. Great care has been given to the preparation of this index, and over three months was required for the careful verification of all the references and for thorough proof reading. Its great value will be appreciated by the thousands of physicians who are purchasing this monumental work, of which one journal said that it signified the dawn of a "new era in therapeutics."

Harrington's Practical Hygiene. A Treatise on Hygiene and Sanitation. For Students, Practitioners, Health Officers, etc. By Charles Harrington, M.D., Assistant Professor of Hygiene in Harvard University Medical School, Boston. New (3d) edition, thoroughly revised. In one octavo volume of 793 pages, with 118 engravings and 12 plates. Cloth, $4.25, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

No department in the realm of medicine approaches in importance Hygiene and Sanitation—the science and art of conserving the health, energy, wealth and welfare of the individual and of the community. An authoritative book, covering the entire subject clearly and comprehensively, is therefore an essential to the full execution of professional responsibilities. Dr. Harrington's work was accepted as the authority upon the appearance of its first edition. He treats his subject broadly and with careful attention to details, his purpose being to furnish a clear, complete, well-illustrated volume equally adapted to the needs of the student, practitioner and health officer. The success of the work is well shown in the demand which has exhausted two large editions in less than four years. As the succeeding editions are called for, the author by careful revision, elision of obsolete matter and addition of new, keeps his work well abreast of the advances in a subject by no means stagnant. The new section on Infection, Susceptibility and Immunity will prove a valuable and interesting feature of the present edition. Evidences of searching revision will be found throughout the book, the alterations and additions necessitating a considerable increase in both text and illustrations although the price remains at its previous very moderate figure.

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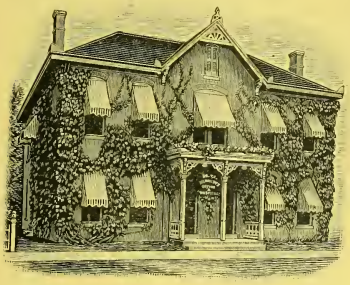

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Abstracts of the Leading Articles of the Month.

The Circumstances and Treatment of Movable Kidney.

Treves, in the London Practitioner, points out that movable kidney seems to have escaped the attention of early pathologists, and that only quite within late years has attention been called to this important condition. The kidneys normally are held in place by the fascia and fat which surround them, by the general pressure of abdominal viscera—the important intra-abdominal pressure—and to a minor degree by the vessels which are proper to the organ. Much support is also derived from the configuration of the lumbar recesses in which they lie. The peritoneum has little effect in holding the gland in place. In the perineal fascia are strands of condensed tissue passing from the posterior abdominal wall to the fibrous renal capsule. These vary in consistence, are tough, and appear to the author—although other authorities do not agree—to take a prominent part in the fixation of the organ. The normal organs are stated to move with respiration, but the author's impression is that the movement of the left kidney is often not to be appreciated, while that of the right is slight, and always much less than the respiratory movemont of the liver.

This condition is commonest in women, a large proportion of whom are individuals of feeble muscular development, lax tissues, flabby abdominal walls, and with possibly a tendency to general enteroptosis. The majority are multiparæ, and a rapid loss of intra-abdominal fat is a common and immediate cause of loose kidney. Injury may produce such a condition, while violent exercise, such as hunting, has been accredited with a share in its production.

In examination of this condition, he mentions the necessity for examination in the erect position, while it would appear that in moving, the thick outer border of the gland moves more and more toward the front wall of the abdomen until it becomes nearly anterior. The movable kidney may become the seat of hydronephrosis; it may become fixed by adhesions in an abnormal position, while it may be the seat of calculus, tuberculous disease, or malignant growth.

The commonest conditions to be mistaken for movable kidney are Reidel's lobe, a distended gall-bladder, and a fæcal mass in the colon. All three may coexist with a movable kidney on the right side. The author's experience is, that a doubtful swelling is more often a distended gall-bladder than a movable kidney. The symptoms of movable kidney are legion, varying from mere

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peevishness of temper to agonizing renal pain. The acute "torsion" attacks stand alone, the remainder are general abdominal symptoms, and "that congeries of troubles which belong to what is known as 'neurasthenia.'" He has come to believe that nephrorrhaphy is by no means a routine measure in the treatment of movable kidney; that it is, indeed, not demanded in the great majority of cases, and that, with one exception, it is to be regarded as the last, and not as the first, resource. The operation is imperative in cases in which there have been "torsion" symptoms; the other cases are best managed by rest in the recumbent position, with careful feeding, precise attention to the digestive organs, and general massage. The so called "rest cure" for a month has not caused the movable kidney to cease to move, but it has rid the patient of her symptoms, since, in a large proportion, of cases neurasthenia is the major element in the train of troubles. With patience and care in fitting, a truss will keep the kidney in position, and since 1895 the author has abandoned operation, except in torsion" cases, relying on trusses and general treatment for a cure. The truss may be dispensed with at the end of a year or eighteen months.

Acute Myelogenous Leukaemia.

Gill, in the Austral. Med. Gaz., describes a case of this rare condition. The patient was a boy of three years. He had been in failing health for two months, complaining of loss of appetite and pallor. The onset was gradual, and there had been neither wasting nor hæmorrhages. The family and past history was good. On admission the child had a waxy appearance, and the lips and mucous membranes were pale. Petechial spots were widely diffused over the body. The gums were healthy, and the tonsils not enlarged. Neither liver nor spleen could be felt. The submaxillary glands on either side were the size of a pigeon's egg, but other lymph glands were not more palpable than normally. The blood changes were: well marked leucocytosis (34,000 to 115,000), showing a large proportion (30 to 45 per cent.) of myelocytes, a small percentage of eosinophiles, but no mast-cells, mononuclear eosinophiles, or nucleated red cells.

Death occurred on the fourteenth day after admission, and was apparently directly due to the anæmia. The physical condition remained unaltered while in the hospital; the spleen was never palpable, neither was the liver enlarged; the lymph-glands remained as on the day of admission. The temperature throughout showed a moderate elevation, generally falling to the normal, or 99 deg. F, in the morning, and rising to 100 deg. F., or rather more, at night. No post-mortem examination was obtained. Acute leukæmia is nearly always of the lymphatic type. Billings records a case in a man of sixty-eight, and quotes eight others from the literature. None of these were in children.

"During the past winter, I have successfully anesthetized with chloroform, while sleeping, ten patients in the Hospital for Ruptured and Crippled," writes Dr. Preston Satterwhite to the Medical Record.

"As instructor in anæsthetics in this institution, I have had ample opportunity for testing this much-mooted question, and find there is little difficulty in producing rapid and profound anæsthesia without the slightest struggle or apparent consciousness. My cases have all been children, ranging in age from four to nine, but there is no reason to believe that a child waiting its turn for an operation should sleep any more profoundly than an adult. After the primary stage, I then switch to ether. I doubt if one could be anæsthetized with ether while asleep without his knowledge, unless he had been previously drugged with alcohol, morphine, or some other narcotic."

Bicarbonate of Soda in Jaundice.

I was once called upon by an adult male patient who was suffering from tertain fever. His temperature was 104.5 deg., when I saw him in the afternoon. He was given ten grains of quinine sulphate in the night when sweating occurred, twenty grains in four powders before the expected attack and ten grains in two powders subsequently every four hours. Thus fifty grains of quinine were given within 48 hours.

The patient did not get the paroxysm, but on the morning of the fourth day he was found to suffer from deep jaundice. I resolved first to try nothing else but soda bicarbonate which was given in half a drachm doses every four hours. The next morning that intense yellow colour had almost entirely disappeared from the conjunctiva, nails and urine; four such powders more completed the cure.

The common belief, of course of non-professional class, is that milk or any fatty food given during the course of a fever causes jaundice. I can not say how far this is a fact. This much I have noticed that simple catarrhal jaundice is seen much more frequently in malarial patients than in any other kind of fever, even before their liver might be expected to have been affected by malaria. It remains to be ascertained as to whether quinine in large doses causes jaundice, although, its use is generally prohibited in actual state of jaundice.—Practical Medicine, Delhi, India.

The trustees of the Johns Hopkins University have divided the chair of medicine, occupied by Dr. Wm. Osler, into the chairs of medicine and clinical medicine. Dr. Llewelys F. Barker has been elected to the chair of medicine, and Dr. William Sidney Thayer to the chair of clinical medicine. Dr. Barker is at present professor of medicine in the University of Chicago and Rush Medical College and Dr. Thayer is associate professor of medicine in Johns Hopkins University. Both of these appointments will prove eminently satisfactory and popular.

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As these cheap and inefficient substitutes are frequently dispensed instead of the original, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. FELLOWS."

SPECIAL NOTE.—Fellows' Syrup is never sold in bulk, but is dispensed in bottles containing 16 oz.

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Miscellaneous.

Board of Medical Examiners of North Carolina--Questions Asked at the Forty-third Annual Session May 17 to 20, 1905, at Greensboro.

PHYSIOLOGY AND HYGIENE.

Chas. O'H. Laughinghouse, M. D., Greenville.

1. What action has pancreatic juice upon Nitrogenized substances?
2. How is inspired oxygen absorbed into the system?
3. What conditions modify Temperature in the Body?
4. Name the Vascular or Ductless Glands?
5. Give origin and functions of Bile?
6. Give functions of Liver?
7. Give functions of Cerebellum?
8. Give functions of Anterior Roots of Spinal Cord?
9. What nerve endows the tongue with motion?
10. Differentiate between an Antiseptic and a Disinfectant?

CHEMISTRY.

By G. W. Pressly, Charlotte.

1. What are hydrates?
2. Distinguish between deliquescent and efflorescent substances.
3. What is alcoholic fermentation?
4. Give name and formula of three acids used in medicine.
5. Write a chemical equation.
6. Cheminal antidote for Nitrate of Silver.
7. What is contained in the so-called hard waters?
8. Name the inorganic salts of the blood.
9. Normal temperature of the body in Centigrade Scale.
10. Convert 1 c.c. of water to minims.
11. What is Iodoform chemically?
12. Complete the following:

$$K_2CO_3 + H_2O + CO_2 =$$
$$Ca\,Cl_2 + Na_2CO_3 =$$
$$2\,C_2H_5OH + HNO_3 =$$

ANATOMY AND HISTOLOGY.

By James M. Parrott, M. D., Kinston.

1. Describe the upper extremity of the Humerus?
2. Describe the Middle Meningeal Artery (Meningea Magna) after it emerges from the foramen spinosum, giving its distribution; state at what point you would trephine to stop hemorrhage from from this vessel?
3. Describe the Island of Riel (or Insula) or Central Lobe?
4. Describe and give the relations of the Tonsils?
5. Describe and give relations of the Internal Mammary Artery?
6. Give the relations of the left Kidney?
7. What are the boundaries of the Femoral Canal and give the relations which it bears to the Deep Epigasiric and Obturator Arteries and the Spermatic Cord?
8. Give Attachments of the Ligaments of the Hip Joint?
9. Give the origin and distribution of the (4th) Fourth Pair of Cranial Nerves (Pathetic Nerve)?
10. Give the distribution of the Musclo-Spiral Nerve and name its branches?

MATERIA MEDICA AND THERAPEUTICS.

By J. T. J. Battle, M. D., Greensboro.

1. Give dose and physiological action of Ipecacuanha, mention alkaloids.
2. Dose and physiological action of Chloral Hydrate.
3. Give preparations of Nux Vomica, doses, its principal alkaloid, symptoms of lethal dose.
4. Give technical name of Jamestown weed, its alkaloids, symptoms and treatment of poisoning by.
5. Cocaine, dose, toxic symptoms and treatment.
6. Gelsemium, dose of Tr. and F. E., its alkaloid and dose, symptoms and treatment in case of poisoning.
7. Physiological action of Cannabis Indica.
8. Explain effect of Acetanilid and the cyanosis it sometimes produces, dose.
9. Give dose and therapeutic uses of Sparteine.
10. If any reason why these combinations should not be used, give them.

1. Pulv. Ipec.
   Acid. Tannic.
   Plumbi Acet.
2. Antepyrin.
   Spts. Aether Nitrosi.
3. Tr. Ferri.
   Tr. Nuc. Vom.
   Tr. Cinch. Co.
4. Cocaine Hyd.
   Sodii Borat.
   Aq. Rosae.
5. Potassii Permang.
   Hydrogen Perox.
   Aq. Destil.
6. Spts. Turpentine
   Tr. Iodine
   Lin. Chlorof.

SURGERY.

By F. H. Russell, M. D., Wilmington.

1. Give Etiology of Erysipelas, Carbuncle, Septicæmia!
2. Give general plan of treatment in cases of inflammation and suppuration?
3. Give the general and local treatment of hemorrhage?
4. Give in detail the preparation of a patient for laparotomy?
5. Give treatment of acute suppurative Osteomyelitis?
6. Give treatment of compound fracture of lower one-third of Femur?
7. Describe circular method of amputation through upper one-third of leg?
8. Give causes and symptoms of Compression of Brain?
9. Diagnosis of penetrating wounds of abdomen?

PRACTICE OF MEDICINE.

By A. A. Kent, M. D., Lenoir.

1. Give etiology of Lobar Pneumonia.
2. Give the symptoms of Hæmorrhage in Typhoid Fever.
3. Define Loco-Motor Ataxia and give the anatomical lesion.
4. Give treatment for Sciatica.
5. Where is the point of tenderness in Appendicitis, in Hepatic Colic (Cholocystalgia), in Nephritic Colic (Nephralgia) of right side?
6. Give treatment for Gonnorrheal Arthritis.
7. Give treatment for Aortic Stenosis.
8. Give symptoms of Tubercular Kidney.
9. Write a single prescription for Erysipelas.
10. Outline briefly the treatment of Glycosuria.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By M. H. Fletcher, M. D., Asheville.

1. The True Pelvis—Describe the Superior strait, the Inferior strait, giving boundaries of each.
2. Describe preparation for delivery after labor has actually begun, the necessary articles to be gotten together, preparation of patient, physician, patient's bed, etc.
3. Give treatment of delay in the first stage of labor. Treatment for antepartum eclampsia at 6th or 7th month.
4. Give differential diagnosis between pregnancy at the 3rd month and an interstitial fibroid of the uterus.
5. Give etiology and symptoms of Pelvic Cellulitis.
6. Give symptoms and treatment of Endometritis.
7. Give directions for care of new-born baby for the first twelve hours after birth.
8. Give symptoms and treatment of Acute Catarrhal Bronchitis in a child two years old.
9. Give etiology, lesions, prophylaxis and treatment of Acute Gastro-enteric Infection. (Summer Diarrhœa in children).

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Journalistic Hysteria.

"It is well known in the offices of medical journals that the business managers of the various publications are perpetually striving to get the better of each other. Their doings in this endeavor are frequently the subject of talk in the offices, but they are not dwelt upon to any noteworthy extent. We have always thought that it would answer no good purpose to refer to them in print, and our observation has been to the effect that our contemporaries were of the same opinion. But the Journal of the American Medical Association has broken away from this dignified position. In its issue for March 25th there is contained a vicious and scurilous attack on the president of the company that owns and publishes this journal, Mr. A. R. Elliott, and incidentally on the journal itself and on its editor. The article is based on a letter sent by Mr. Elliott, as president of our publishing company, to certain manufacturing pharmacists, inviting them to give their views concerning the American Medical Association's recently promulgated rules for estimating the ethical status of proprietary medicinal preparations. The article published in the Journal of the American Medical Association is so undignified and so hysterical that we cannot account for its appearance except on the supposition that our Chicago contemporary felt itself to have been hard hit by Mr. Elliott's letter, and that, we think, will be the interpretation put upon it by the great majority of readers. Not only has our contemporary's equanimity been ruffled, but it seems to have feared that its veracity might be called in question, for, instead of simply quoting the text of Mr. Elliott's letter, it gives up nearly an entire page of its valuable space to a full fac simile reproduction of the letter—a 'yellow' procedure to which it would hardly have resorted save under the pressure of such fear. The excuse given for this reproduction is that the letter is 'so unique.'"

The above is the opening of an editorial in the New York Medical Journal and Philadelphia Medical Journal, and, as its writer justly says, the doings of the business managers of medical journals striving to get the better of each are not referred to by other journals in their editorial columns. We have followed this course and shall continue to do so. The Journal of the American Medical Association is anxious to determine the ethical status of proprietary preparations. This it has a perfect right to do; but the manufacturers of these products question the right, moral, ethical, or legal, of the Journal insisting upon their revealing trade secrets. The entire question however is a very vital one both in a medical and in a financial sense, and it will not be definitely settled for a long time nor without some difficulty.—St. Louis Medical and Surgical Journal.

The Menopause.

Dr. Thomas Opie of Baltimore, after describing the term menopause, its character and results, how it has been considered by scientists for many ages, and citing its general statistics, adds: "The treatment required consists mainly in meeting symptoms. In nervous, highly organized, sensitive women, who spend most of their time in the house, those who have been harassed with social and domestic cares, the fashionable and dissipated, the menopause will call for special attentiou, and it may be well to remember we have no special disease to treat, only symptoms. Those who are sick must be treated on rational principles, no superstitions or traditions. Those who need drugs should receive remedies that are tried and reliable." This has been the province of Daniel's Conct. Tinct. Passiflora Incarnata for thirty years, to reach cases where the nervous energy is at a low ebb, to retone nerves that are exhausted from mental or physical exertion and to supply vigor to the convalescent stage. From whatever cause the nervous system is affected, Daniel's Passiflora brings a calmative and sedative influence that nourishes it to the normal condition.

The Mechanism of Asthma.

Curiously little is known certainly about the precise mechanism of asthma. The matter has been ably dealt with by Inspector-General Hare, of Brisbane, in an original article which will be found elsewhere in the pages of our present issue (page 395). He points out the two antagonistic views which are held by different authorities, namely, that which attributes the bronchial construction to the circular muscular fibres and the other which ascribes it to swelling of the mucosa of the bronchi. The evidence for and against these views is reviewed in a singularly able and learned article. His own conclusion is that the asthmatic paroxysm depends upon a special pathological variation of vaso-motor action. It is desirable that medical men should arrive at some settled convictions upon so important a subject. Until they arrive at the truth of the matter they must be hopelessly at fault in the treatment of asthma, inasmuch as muscular spasm and vaso-motor swelling demand therapeutic handling of widely differing nature. The determination of elementary scientific facts in so common a malady as asthma is allowed to remain in doubt while progress in medicine is left mainly to laboratory workers. A little reflection will show that great advances in therapeutics have been hitherto mainly due to the workers in the field rather than in the study armchair and the laboratory.—Medical Press and Circular, London.

Cauliflower Growths of the Vulva.

A. Hellendal (British Gynecological Journal, November, 1904) on the basis of a case of elephantiasis tuberosa, one of elephantiasis condylomatosa, one of papilloma carcinomatosum, and ten of carcinoma vulvæ, operated upon, discusses the clinical and anatomical peculiarities of cauliflower growths of the vulva. He holds that considering their rarity the records of these tumors should be supplemented by drawings. Elephantiasis is, of course, recognizable by the great hypertrophy of the cutaneous and subcutaneous connective tissue. In conglomerate growths of condylomata acuminata the scantiness of such connective tissue, together with the hypertrophy of the papiliary bodies, is striking. In papiliary carcinoma evidence may be found in the atypical proliferation in the growths in the deeper tissues supported by the presence of cancroid cells. Every case must be submitted to microscopical examination without which the diagnosis of these tumors is hardly possible.—Exchange.

Daniel's Passiflora Incarnata.

Wherever a nerve calmative is required Conct. Tinct. Passiflora Incarnata may be used with most satisfactory results. For students and brain-workers of every class who suffer with mental strain or nervous exhaustion, Passiflora produces immediate relief. On the tired ganglia it exerts a soothing, hypnotic influence, giving to the patient natural relaxation and infusing the nerves with vigor and increasing strength. During the convalescent stage of those afflicted with hysteria and similar diseases; in the case of women who are extremely nervous, and especially during the menopause, and in nervous indigestion and headache Passiflora acts promptly and positively. Uterine trouble, causing insomnia, yields invariably to the quieting and curative powers of Passiflora.

The Arlington Chemical Company have published Volume II. of the "Law and The Doctor," treating of "The Physician as a Witness." It is very interesting reading and should be in the hands of every doctor, and will be sent gratis on request.

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RESINOL is the specific for all forms of pruritus. There is nothing that produces such immediate cessation from its pain, burning, and intolerable itching.

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possesses the healing qualities of the Ointment, and is invaluable for cleansing affected parts.

I find by testing it that your Resinol Ointment is a most excellent preparation for all skin diseases; and for pruritus ani et vulvæ, I have never found anything better.—I. B. HARGETT, M. D., Cleveland, O.

I used your Resinol Ointment a short time ago in a most intractable case of pruritus ani which defied every other remedy used. It was relieved in a very few applications. I regard your preparation as a triumph over this detestable symptom.—J. G. KELLY, M. D, Hornellsville, New York.

I tried your Resinol Ointment on myself. I had suffered from pruritus ani, or marginal eczema, for 25 years, and had tried many remedies without any relief, until Resinol proved soothing and stopped the itching instantly.—J. T. HICKMAN, M. D., Mt. Jackson, Virginia.

Resinol Ointment is the first local application I have found, that has given lasting and gratifying results in the treatment of pruritus vulvæ.—DR. GRACE WINTERSTEEN, Harrisburg Pennsylvania.

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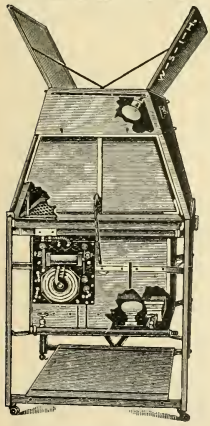

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Amalgamation—with its attendant diminution of expense and increased efficiency of concentrated effort has dominated the financial world during the last decade. It has, in a measure affected the social, religious and educational realms, and "combines" have become important elements of progress everywhere.

In the educational field, colleges have affiliated and amalgamated, while others in equal number have sprung into independent existence. A few medical colleges have amalgamated—to the better welfare and strength of all concerned. For the small recompense of honor and glory that comes to the medical profession—for not one in a hundred ever receives one cent. of salary—it is strange that men will give their time and effort helping to crowd an already over-crowded, and in a measure, poorly educated profession. In fact men will give their time and money to the building of more struggling institutions, when the same money and energy otherwise directed, would better provide for the rainy day and the physician's family, while his patients might profit materially by increased care and attention.

The educational requirements for admission to many medical colleges are absolutely nil and in some instances the student is fortunate if he can legibly write out his gleanings from the lectures of his illustrious professors. There is but one justification for such laxity—and it lies in the necessity of obtaining fees from a large body of students to meet current expenses. When medical colleges take as their motto—Not how many, but how efficient—the medical profession will assume its rightful place in the citizenship of the nation, and the ills and health of the people will be guarded by men who have been properly and generously trained.—Southern Med. and Surgery.

Full-Time Extra-uterine Pregnancy with Living Child.

Czyzwies (Centralbl. f Gynak, Leipzig, 1904, No. 4) reports the following cases:—P. had three normal confinements; complained of backache throughout the fourth pregnancy. The pelvis was generally contracted to a slight degree. The abdominal swelling was chiefly marked on the right side; fœtal parts were very distinct and heart sounds audible. Through the posterior fornix a swelling was detected; through which the sutures and posterior fontanelle could be felt. In the middle line, and extending half way to the umbilicus, there was a swelling, which proved to be the empty uterus, the diagnosis of an 8-months' ectopic gestation with living child being made. The pregnancy was allowed to go out to full time.

With the onset of pains, exactly like ordinary uterine contractions, the abdomen was opened by an oblique incision. The sac was found intimately adherent to intestine, omentum, uterus, and peritoneum, rendering its complete removal impossible. On account of hæmorrhage, from partial detachment of the placenta, the latter was removed, and both broad ligaments seemed to control parenchymatous bleeding. The child, slightly asphyxiated, recovered. The mother died on the fourth day. The post-mortem examination showed that the gestation sac probably had its origin from the right ovary.—Edinburgh Medical Journal.

Ergoapiol (Smith) may be implicitly relied upon to promptly relieve the most intractable forms of amenorrhea, dysmenorrhea, menorrhagia, metorrhagia, or, in fact, any disturbance of the menstrual function arising from a disordered condition of the organs of regeneration. It is an emmenagogue of incomparable excellence.

Carcinomatous Papillary Ovarian Cystoma.

D. Levi (British Gynecological Journal) has from his study of the literature of the subject drawn the following conclusions (1) Carcinomatous cysts of the ovary may develop at any period of life (2) they originate in the cells of the tubes of Pfluger, as do also the papillomata of the germinal epithelium of the ovary (3) histologically cancerous cysts are difficult to distinguish from papillomata, but can be recognized when masses of atypical epithelial elements are found; a papilloma which at first has a benign course may degenerate into a carcinomatous form (4) the rupture of a cystic tumor into the peritoneal cavity may pass unobserved owing to the absence of definite symptoms (5) the liquid of carcinomatous cysts apart from suppuration is not of a septic nature—at all events the germs it contains are not pathogenic (6) the prognosis of every ovarian tumor ought to be guarded, because it is not possible to exclude with any certainty the possibility of malignancy (7) the treatment should be operative removal of all that is suspected; in recurrent and in very advanced cases complicated with numerous metastases it is better not to interfere, as the operation may have a fatal result.—Indian Medical Record.

Board of Examiners for Trained Nurses.

The Board of Examiners for Trained Nurses held an examination in Greensboro during the recent session of the North Carolina Medical Society. The following applicants passed successful examinations and received their license :

Misses Annie M. Insch, Charlotte; Ellen Brown, Efiand; Nona Powell, Smithfield; Carroll Crocker, Sanford; Beulah Owens, Barber; Mary Millner, Winston-Salem; Mary Sheetz, Winston-Salem; Sarah Foard, Sonth Bend; Edith Eaton, Wilmington; Lydia Holman, Ledger; Mrs. C. W. Thompson, Mebane; Misses N. J. Lackland, Charlotte; Daisy Sloan, Charlotte; Effie Reid. Wilmington; Annie M. Hawkins, Charlotte; Laura B. Worth, Charlotte; Elenor Phillips, Raleigh; M. C. Lamb, Garland; Sallie Lineberger, Statesville.

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WRITE
FOR
LITERATURE

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Chinese Proverbial Wisdom.

In an old magazine we came across the following Chinese proverbs and aphorisms. We believe them interesting and worthy of preservation :

A wise man adapts himself to circumstances, as water shapes itself into the vessel that contains it.

Misfortunes issue out where disease enters in—at the mouth.

The error of one moment becomes the sorrow of a whole lifetime.

Disease may be cured, but not destiny.

A vacant mind is open to all suggestions, as the hollow mountain returns all sounds.

He who pursues the stag regards not hares.

If the roots be left the grass will grow again. (This is the reason given for exterminating a traitor's family).

The gem cannot be polished without tools.

A wise man forgets old grudges.

Riches come better after poverty than poverty after riches.

A horse can drink no more than its fill from the river. (Enough is as good as a feast).

When the pond is dry the fishes will be seen. (When the accounts are settled the profits will appear),

You cannot strip two skins off one cow.

He who wishes to rise in the world should veil his ambition with the forms of humanity.

The gods cannot help a man who loses opportunities.

Eggs are close things, but the chicks come out at last. (Murder will out).

To win a cat and lose a cow (consequences of litigation).

He who toils with pain will eat with pleasure.

Borrowed money makes time short; working for others makes it long.

Those who cannot sometimes be deaf are unfit to rule.

Sympathy is the best antidote for selfishness.

When you choose a friend be careful, and to retain him be equally so.

Great works are due to great perseverance always.

Every time you show envy you openly confess inferiority of self.

Fads, Fancies, Follies and Fashions are four means of recreation for humanity.

A woman's reason, Because, is but a little thing, yet wise is he who can give it to every Why in life.

Tennessee State Medical Association.

The following officers of this association have been elected for the coming year: President, Dr. Cooper Holtzclaw, of Chattanooga; first vice-president, Dr. S. W. Woodyard, of Greenville; second vice-president, Dr. Alfred Moore, of Memphis; third vice-president, Dr. A. F. Richards, of Sparta; secretary, Dr. George H. Price, of Nashville; treasurer, Dr. W. C. Bilbro, of Murfreesboro. Following the election of officers the meeting place for next year was decided upon, and Memphis will get the meeting in 1906, and the by-laws prescribe the date, which is the second Tuesday in April of each year.

Surgeons of the Southern Railway.

The following officers were elected at the meeting of the Associations of Surgeons of the Southern Railway, held at Chattanooga: President, Dr. Thos. B. Satterwhite, of Louisville, Ky.; First Vice-President, Dr. J. H. Mitchell, of Mt. Vernon, Ill.; Second Vice-President, Dr. R, J. Noble, of Selmer, N. C.; Secretary and Treasurer, Dr. J. W. Ray. of Woodstock, Ala., was reelected; Member of the Executive Committee, Dr. W. C. Day, of Danville, Va.

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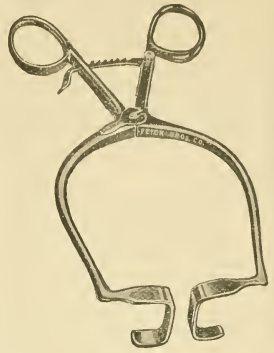

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Dr. Leon M. Cash, of Smith Grove, Davie county, died May 17, at the age of 80 years. The deceased had been in declining health for several months, heart failure being the cause of his death. Dr. Cash was a most estimable citizen and had practiced his profession in Davie county for the past 53 years. He leaves a wife, five sons, two daughters and a large circle of friends who mourn his death.

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Conjure up, if you can, the juxtaposition of this and the Bates article. Then take one more think as to the value of so "unholy" an alliance as that said to have been patched up between the "machine" management of the A. M. A., the J. A. M. A., the A. M. A. Council on Pharmacy and Chemistry and the N. A. R. D. and its organ, Notes. Is the A. M. A., as a body, in unanimous sympathy with such professionally debasing campaign methods and relationships? We are assured that such is not the case; also, that the profession throughout the country is not so utterly stupid and uninformed in these matters as the "machine" management of the A. M. A. would pretend—that it is pretty widely recognized that N. A. R. D. Notes and the J. A. M. A.—Council on Pharmacy and Chemistry are using each other to subserve aims and purposes which are practically identical—that is, as one more club to bring into line by process of intimidation the nonconformist manufacturers of the country—manufacturers of so-called patent medicines sold and advertised to the laity in the case of the former, and manufacturers of proprietary pharmaceutical preparations offered and advertised exclusively to the medical profession in the case of the latter, with the additional and coincidental effort on the part of the "machine" management of the A. M. A. to so confuse the minds of physicians of all schools between the two classes of manufacturers as to lead them, in the end, to regard both as of and in the same category. That any effort of the peculiarly mixed character illustrated by the present is destined to prove abortive is—to the minds of many professional observers—a foregone conclusion, and this view is confirmed by so conservative an authority as American Medicine, which gave expression to an editorial opinion on the subject in a recent issue in the following rational terms :

"A protest is needed, and a strong one, against the irrational and unjust prejudice shown by some physicians against manufacturers of pharmaceutic and other products used by the medical profession and against their advertisents in medical journals. Our experience is that many lay manufacturers are, as a rule, quite as honorable and as good citizens, that they exhibit, indeed, quite as good a professional spirit as do many physicians. There are bad men in both callings. Self-laudation through dogmatic and indiscriminate abuse of the manufacturers is both stupid and silly. In the first place, we should sweep and clean our own house. If manufacturers are wicked, it is even worse for physicians to use the bad articles made by them. They are under no compulsion to do so, and our wrath might very fittingly be expended upon those of our own household. And in reference to advertisements in medical journals, it may also be suggested that when they are of good character and made by reputable firms, criticism by the profession is hardly just except when 10,000 physicians shall first agree

PNEUMONIA

PLEURISY AND BRONCHITIS

Under the old modes of treatment the death rate from pneumonia was phenomenally high—too high. Some will die under any treatment, but those who are usng

Antiphlogistine

in treating their pneumonia patients find that many apparently hopeless cases recover.

Most physicians now freely acknowledge that Antiphlogistine is far better than ice-packs, blisters, counter-irritants or poultices of any kind. Through a uniform degree of heat and moisture, long and continuously maintained, aided by a persistent hygroscopic effect, Antiphlogistine tends strongly in the direction of flushing the capillaries. The relief of the pulmonary congestion and the overworked heart is further encouraged by Antiphlogistine's action upon the nerve terminals, resulting in a dilation of the superficial vessels and the contraction of those deeply seated.

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The seamless, air-tight original container of Antiphlogistine not only insures its delivery in perfect condition, but is economical for the patient; therefore, always order an original package and specify the size required—Small, Medium, Large or Hospital size.

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Gastro-Enterostomy.

Gastro-Enterostomy has been performed for a variety of cases, but, for the most part, the relief of pyloric stenosis is at the bottom of the necessitys for the operation. To summarise, it has been done (1.) For stenosis of pylorus (2) hour glass contraction (3) stenosis of duodenum. (4.) For putting stomach at rest (5) to check hæomoerage (6) In atonic dilatation with marked proptosis (7.) Chronic dyspepsia, (without ulcer or dilatation), when other means have failed. This last is the most unsatisfactory. Saundby thinks that minor degrees of obstructive dilatation are often overlooked as in them the classical symptoms, periodic vomiting and visible peristalsis are absent and the symptoms ascribed to chronic gastritis. He holds that the only way to avoid this mistake is the employment of inflation in the examination of stomach cases. Dilatation of the stomach however may be due to atony in which an operation would not succeed. Thus it is necessary to know whether obstruction exists or not. Saundby believes this may be done by the examination of the fasting stomach twelve hours after the taking of a test meal of bread and meat the night before. If there is no obstruction the stomach will be free of even microscopic traces of food. If obstruction exists the amount present is in proportion to the degree of obstructions. Peterson's operation gives a mortality rate of only 5 per cent. It is based on the simple anatomical principle that the first few inches of the jejunum lie directly in contact with the posterior surface of the stomach, separated only from it by the nonvascular part of the mesocolon, and that this part of the jejunum descends vertically and without any turns. "It is attached two to four inches below its origin lying vertically, and is thus anastomosed in its normal position and without any twist to the adjoining posterior stomach wall."

The after treatment of a patient upon whom the operation has been performed is of great importance. Shock, vomiting and pneumonia have to be guarded against and hot water bottles and a cotton jacket should be used at a time of operation. If shock occurs saline solution of the bowel is useful, and later intravenously if necessary. For vomiting gastric lavage is best using small quantities of water—200 to 300 c.c.—and giving nothing by the mouth.

If peritonitis ensues a re-operation is demanded and the peritoneum worked out and anastomosis strengthened. Robson says the operation of gastro enterostomy is imperative in the following cases as soon as diagnosis is established: (1) In cases of pyloric stenosis leading to dilatation of the stomach (2) In malignant stenosis of the pylorus (3) A degree of congenital stenosis of the pylorus which causes, though often unrecognized, a dilatation of the stomach in every adult. (4) Congenital atresia of the pylorus in which no passage exists between the stomach and intestine. (5) In chronic ulcer, with tumor of doubtful character, too extensive or adherent for effectual removal. (6) In cancer or tumor of the duodenum, producing obstruction to the onward passage of the gastric contents. (7) Hour glass contraction of the stomach due to chronic ulcer or to cancer; but great care must be observed that the junction is not made between the bowel and the distal cavity, otherwise no benefit will ensue. (8) In perigastric adhesions. (9) In tumor outside the pylorus, but pressing on it and causing obstruction to the onward passage of the stomach contents. (10) In ulcer of the stomach whether acute or chronic, not yielding to medical treatment. (11) Duodenal ulcer, which fails to yield to general treatment. (12) In hæmorrhage from the stomach or duodenum, where general treatment has been tried it failed, and where the bleeding is persisting or recurring after brief intervals. (13) In persistent spasm of the pylorus, or Reichmann's disease leading to dilatation of the stomach. (14) Hyperchloridia, which in spite of treatment, causes much misery by constant indigestion with acid eructations. (15) Persistent gastralgia. (16) In tetany of gastric origin. (17) Acute gastric dilatation. (18) In rare cases of ulcer of the stomach eroding pancreas and producing panercatitis, with abscess draining into the stomach. (19) Cholelithiasis, leading to such extensive perigastritis and thickening of the pylorus that gastrolysis is not sufficient. (20) In some cases of atonic dilatation of the stomach.

The subject is an important one and the above facts deserve our readers' attentien.—Indian Medical Gazette.

Constipation.

The lack of peristalsis which results in torpor of the bowel is no doubt directly caused by retention of the feces. The toxic principles of these retained feces paralyze the nervons mechanism to which peristalsis is due. Glyco-Thymoline given freely seems to prevent this condition and to excite peristalsis. In such cases I prescribe frequently a dessertspoonful four times a day and this with manipulative processes, is all that can be desired.

Case 1. A man came to me for treatment complaining of headache, vertigo and distention of the abdomen and had a hard stool once in two or three days with distress and straining. I gave directions regulating the diet and directed Glyco-Thymoline to be taken in teaspoonful doses four times daily in plenty of water. It acted as a mild laxative, producing a normal passage every day and all symptoms subsided. Now he is using one teaspoonful a day to prevent any return of the condition.

Case 2. Miss F. C., aged 30. Gastro-intestinal catarrh. Persistent nausea, vomiting of a frothy mucus, eructation of gas and constipation. Glyco-Thymoline 50 per cent. solution in warm sterilized water; a teaspoonful every hour for twenty-four hours and very little relief noted. I now decided to crowd the remedy still further by giving a teaspoonful full strength every thirty minutes until decided relief. This did the work desired. In four hours all symptoms were relieved and the patient called for something to eat. Raw egg beaten up with a minute quantity of Saccharin was allowed. In this case the bowels became regular twice a day. Nothing had been given to produce this result. Does Glyco-Thymoline contain laxative properties? This case went to an uneventful recovery in six weeks.—John Lawson Cameron, M. D., Philadelphia, Pa.

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The instrument is worn by placing it in the rectum, allowing the enlargement on distal end to rest inside the internal sphincter muscle, and the base remaining on the outside. The medicament to be applied is fed into the parts as it is absorbed or taken up, thus keeping the lesions continuously bathed with the medicament.

The apparatus is made in two forms, one of silver and copper parts in order to give an electrical effect —the other is of silver alone.

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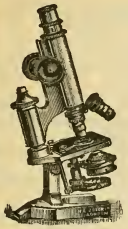

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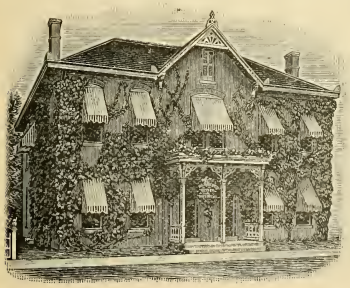

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Journalistic Hysteria.

It is well known in the offices of medical journals that the business managers of the various publications are perpetually striving to get the better of each other. Their doings in this endeavor are frequently the subject of talk in the offices, but they are not dwelt upon to any noteworthy extent. We have always thought that it would answer no good purpose to refer to them in print, and our observation has been to the effect that our contemporaries were of the same opinion. But the Journal of the American Medical Association has broken away from this dignified position. In its issue for March 25th there is contained a vicious and scurrilous attack on the president of the company that owns and publishes this journal, Mr. A. R. Elliott, and incidentally on the journal itself and on its editor. The article is based on a letter sent by Mr. Elliott, as president of our publishing company, to certain manufacturing pharmacists, inviting them to give their views concerning the American Medical Association's recently promulgated rules for estimating the ethical status of proprietary medicinal preparations. The article published in the Journal of the American Medical Association is so undignified and so hysterical that we cannot account for its appearance except on the supposition that our Chicago contemporary felt itself to have been hard hit by Mr. Elliott's letter, and that, we think, will be the interpretation put upon it by the great majority of readers. Not only has our contemporary's equanimity been ruffled, but it seems to have feared that its veracity might be called in question, for, instead of simply quoting the text of Mr. Elliott's letter, it gives up nearly an entire page of its valuable space to a full sized fac simile reproduction of the letter—a "yellow" procedure to which it would hardly have resorted save under the pressure of such fear. The excuse given for this reproduction is that the letter is "so unique."

The writer of the article assumes that in issuing the letter Mr. Elliott temporarily usurped the function of the editor of this journal, and that he is in the habit of doing so, for the writer goes on to say: "There was a time when the New York Medical Journal held a high position among medical journals of this country. It stood for the ideal in medicine and for the profession it represented. But that was when it was owned by the Appletons, when Dr. Frank P. Foster was editor in fact, and who, as such, would not have advocated in its editorial pages secrecy in medicine."

As regards the case in point, correspondence with manufacturers, either to ascertain their views or for any other purpose, we do not look upon as the editor's function; therefore, there would not have been in any event a usurpation of that function in the issue of the letter. As a matter of fact, however, the editor was consulted before the letter was sent out, and he entirely approved of it. The proposition to devote some space to manufacturers' expressions of opinion seemed to him unobjectionable, particularly in view of the fact that such space was not to be included in the reading pages of the journal, a fact that was to be clearly indicated. As regards the general implication that the editor of this journal is no longer the "editor in fact," we wish to say emphatically that he is absolutely untrammelled by the publishers. If during the time that this journal has been owned by the A. R. Elliott Publishing Company it had failed in any respect to live up to its former reputation as an exponent of the true interests of the medical profession, its failure would not have been due to any shortcomings on the part of the publishing company. But there has not been any such failure. On the contrary, it holds in the esteem of the profession a higher position than it ever held before. This we are justified in saying on the strength of the frequency with which the leading physicians of the country, including many of the American Medical Association's foremost members, contribute to its columns, and on the strength of its greatly increased circulation, which, in spite of the Journal of the American Medical Association's innuendo, is larger than that of any other weekly American medical journal that has not its following largely ready made for it by membership in some organization. Moreover, our present publishers have so added to our resources as to enable us to increase the number of reading pages very decidedly.

The Journal of the American Medical Association sneers at the president of our publishing company because he is primarily an advertising agent, as if that fact disqualified him as a publisher, and again it descends to the "yellow" methods by giving a fac simile reproduction of one of his letter heads. We understand that Mr. Rockefeller is prominent in the affairs of the Standard Oil Company. Does anybody imagine that that fact taints the Rockefeller Institute for Medical Research? But we have said enough of the "nasty" article in our Chicago contemporary; it is merely an exhibition of journalistic hysteria.—New York Medical Journal.

Listerine Dermatic Soap.

The Lambert Pharmacal Co. has lately inaugurated a new venture in the way of an antiseptic soap which possesses the virtues of Listerine in so far as a soap may. It is only a matter of recent years that especial attention has been given to producing soaps which shall possess a degree of curative power in diseases of the skin and in the care of surgical conditions. A considerable variety of such soaps is now on the market and the mission of the lot is wide; it is safe to say that Listerine Dermatic Soap will prove one of the most serviceable, and will soon make for itself a popularity with the profession in keeping with that which has been established by Listerine:—Medical Fortnightly, Jan. 25, 1905.

A New Triturator.

It will be a satisfaction for druggists, as well as physicians, to know that a new mechanical triturator has been placed on the market.

The process of reducing substances to fine particles by trituration is, as every druggist and physician knows, both laborious and trying when done by hand, and the product cannot possibly be uniform.

The Acme Triturator Co., of Los Angeles, California, have invented a triturating machine which they guarantee to do the work of several men, and do it with greater accuracy than can possibly be done by hand.

The Triturator will be on exhibition at the Portland Exposition, and undoubtedly will prove as great a success financially as it has already done practically.

A Spring Medicine.

In the spring the organs of elimination do not possess their usual activity on account of having become clogged by the accumulation of poisonous and perverted secretions during the winter months when the skin neglects its duties and the kidneys are overworked.

The symptoms which arise from this condition are very similar to those of malaria, but as the causes are not alike in the least, the treatment should be entirely differeut, a fact which is often overlooked.

The Tongaline Preparations by arousing the absorptive powers of the various glands which have been clogged and by their stimulating action upon the liver, the bowels, the kidneys and the pores, cause these organs to perform their proper functions, thus restoring at once the equilibrium of the system.

Where there are indications of any excess of uric acid, Tongaline and Lithia Tablets (Tongaline 5 grs., Lithium Salicylate 1 gr.) will be found much more effective and satisfactory than lithia alone or

CHRONIC CONSTIPATION

Is one of the most frequent as well as one of the most stubborn conditions with which the physician has to contend. This is largely due to the great amount of cathartics, liver pills and laxative nostrums so generally forced upon the American public.

There is but one method of treatment that will accomplish any permanent relief in these cases! That is gradual and regular rectal dilatation. It does for the invalid what Nature is doing every day for the healthy individual. It establishes regular and **natural** bowel action.

YOUNG'S DILATORS

are made of hard rubber in four graduated sizes. They are self-retaining and may be used by any intelligent person. They are practically infallible. Prescribe a set of these dilators in one of your most obstinate cases and you will appreciate their necessity in other chronic conditions due to defective elimination.

Sent prepaid on receipt of price, $2.50 per set. (To the profession.)

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the true glandular nuclein.

It contains the organic phosphorus exactly as found in nature and is thus easily assimilated.

Its action is to increase the activity of the body cells.

A sample and an illustrated book on Neoplasms will be sent upon request.

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lithia waters which contain but a very small, indefinite and variable quantity of lithia salt.

If there are any evidences of malaria, Tongaline and Quinine Tablets (Tongaline 3 1-2 grs., Quinia Sulph. 2 1-2 grs.) will promptly and thoroughly correct the trouble and overcome any tendency to periodicity.

In Tongaline all the salicylic acid is made from the purest natural oil of wintergreen, the only kind that should be administered internally, as the synthetic product weakens the heart and depresses the entire system.

How Long?

How long will the American doctor submit to be dictated to as to what he will prescribe by the continental foreigner?

The Virginia Medical Semi-Monthly hits the nail on the head when it says, editorially, in the January number:

"A few years ago it was common—it was fashionable—for doctors to prescribe various proprietary articles of foreign manufacture. It was all right in those days to prescribe those things. But soon the American took hold of the idea, and began

to prepare equally neat, equally palatable, equally useful products, when all at once the prescribing of such things became all wrong."

You see? It got to be wrong when the American began to compete with the continental foreigner in America, his own country.

Does the foreigner have any influence with the Journal of the American Medical Association? Watch it and see. You will find that American products are decried in the interests of German patent medicines. Can anyone say, in the face of this, that organizations are not used for the benefit of the few?

Listen to what the American Association of State Medical Journals proclaimed at its last meeting in Atlantic City: "If a product is marketed under a copyright name, the manufacturer shall furnish with it the proper chemical name, and if not patented, then also the process of manufacture."

Do you see the nigger in the wood-pile in this?

Why do they require the process of manufacture? If the manufacturer gives away his process, everybody can make the preparation to its great detriment, whereas the patented article has no competition. Anybody can see this who can see anything.

Does anyone believe that the American doctor can be hoodwinked by any such stuff as this? These fellows forget that this is America, not Germany. Does not everybody know that the doctor who has used these much-decried preparations, some of them fifteen or twenty years or more, and gotten satisfactory results, is going to continue to use them, without regard to what any continental manufacturers, or their agents or hirelings, may say or do through the American Medical Association or elsewhere? It is possible to fool the ignorant man, but not the American doctor, who is an intelligent, able and educated man. He is going to do just as he pleases. The fellows who think they are going to use him can not do it. They will find they will fail every time.—Exchange.

Relief and Hospital Department.

The third paper of the Symposium on Surgical and Relief Service of Railways, by Dr. G. G. Thomas, of Wilmington, N. C., and published in the March issue of this journal, is one of the strongest papers which has ever been written upon this subject. The author describes the many details of this service on the Atlantic Coast Line in a most dignified manner, and his discussion of the most important points is fair and impartial. It is indeed refreshing to read his article, which is of deep interest from beginning to end.

Among the many points which stand out prominently in this popular paper may be mentioned the following: Referring to physical examination the author says—"It is therefore not unkind, or in a manner of compulsory action, to expect that any person coming into the service as a wage earner shall enter through the door of the relief department. This mode of entrance subjects the applicant to a rigid physical examination. Here again, the company enjoys the benefit from the relief department for its contribution of maintenance, by securing the services of healthy employees." He also calls attention to the fact that many employees of railways are improvident. "They spend all they make, and when adversity comes in the shape of sickness there is nothing left them to look forward to except the charitable disposition of their fellow employees."

Speaking of the monthly contributions of employees he says that "the amount given is small, and after a few months it ceases to be missed, but its return when adversity in the shape of sickness of the wage-earner seizes the household with dismay is manifold and its blessings actual. The hat no longer goes around when the pay car arrives for some poor fellow who is sick and in want, nor are his fellow employees called on to lessen their wages by contributing to his support. This establishment of a relief department by the company when the employees have seen and felt its beneficence brings a new and better relation between the corporation and its managers and the labor which it employs."

What the author says in regard to the hospitals of the company shows very plainly that the money spent in placing them in service is well invested. No one can read Dr. Thomas' article without being impressed with the immense value of the relief and hospital department to the Atlantic Coast Line, which is considered the most complete service in America. What Dr. Thomas says of the duties of chief and local surgeons is worthy of most careful consideration. In closing his article he briefly mentions some of the important features of the service, but in a most eloquent manner. The officials of any company contemplating the organization of a surgical and relief department should first become familiar with the details of the service described in Dr. Thomas' excellent paper.—Intern of Journal of Surgery.

Something Accomplished After Forty.

In his now celebrated valedictory address, in the section dealing with "the comparative uselessness of men above forty years of age," Osler said: "Take the sum of human achievement in action, in science, in art, in literature—subtract the work of the men above forty, and, while we should miss great treasures, we would practically be where we are to-day." Six years ago, when the late Major Walter Reed began the experiments by which he demonstrated to the satisfaction of the scientific world the correctness of Finlay's theory regarding the role of the mosquito in the propagation of yellow fever, he was forty-eight years old. Five years ago, when Major William C. Gorgas, acting upon this theory, drove yellow fever from Havana and freed the Southern States from its menace, he was forty-six years old. Without the achievement of these two "comparatively useless" men, would we practically be where we are to-day?—Exchange.

An Eligible Combination.

A number of years ago Dr. James J. Sullivan (University Medical College) New York City, applied the remark. "An Eligible Combination" to a then new preparation of well known synergetic remedial agents. It is almost unnecessary to state that the preparation to which he referred is now well and favorably known as Antikamnia and Codeine Tablets, each tablet containing 1-4 gr. codeine and 4 3-4 grs. antikamnia. A fact which should not be overlooked, is that the codeine used in this tablet is specially prepared and purified, is non-constipating, and does not induce a habit. These are some of the particularly advantageous features of the Antikamnia Chemical Company's codeine and are well worth bearing in mind.

In the harrassing cough of phthisis, or in the pain or pleuritis, in the painful sensation accompanying bronchitis when the tubes are dry and irritable—as they usually are—the blending of the two drugs composing Antikamnia and Codeine Tablets will not be found wanting in action, but will give results that are gratifying to both the patient and the medical attendant. This tablet is a sedative to the respiratory centers in both acute and chronic disorders of the lungs. Cough, in the vast majority of cases, is promptly and lastingly decreased, and often entirely suppressed. In diseases of the respiratory organs, pain and cough are the symptoms which especially call for something to relieve and this tablet does the work. In addition it controls the violent spasms accompanying the cough, which are so distressing.

PNEUMONIA

PLEURISY AND BRONCHITIS

Under the old modes of treatment the death rate from pneumonia was phenomenally high—too high. Some will die under any treatment, but those who are usng

Antiphlogistine

in treating their pneumonia patients find that many apparently hopeless cases recover.

Most physicians now freely acknowledge that Antiphlogistine is far better than ice-packs, blisters, counter-irritants or poultices of any kind. Through a uniform degree of heat and moisture, long and continuously maintained, aided by a persistent hygroscopic effect, Antiphlogistine tends strongly in the direction of flushing the capillaries. The relief of the pulmonary congestion and the overworked heart is further encouraged by Antiphlogistine's action upon the nerve terminals, resulting in a dilation of the superficial vessels and the contraction of those deeply seated.

Once you have used Antiphlogistine on yourself, your wife or your child, you will ever after appreciate its efficacy.

Follow Directions Carefully

Directions for Applying In Pneumonia.—Prepare the patient in a warm room Lay him on his side and spread Antiphlogistine thick and as hot as can be borne over one-half the thoracic walls. Cover with a good, warm, cotton-lined cheese-cloth jacket. Roll the patient over on dressed side and complete the application. Then stitch the front of the jacket. Prepare everything beforehand and work as rapidly as possible, The dressing should be renewed when it can be easily peeled off, generally in about 24 hours.

The seamless, air-tight original container of Antiphlogistine not only insures its delivery in perfect condition, but is economical for the patient; therefore, always order an original package and specify the size required—Small, Medium, Large or Hospital size.

(Never sold in bulk.)

THE DENVER CHEMICAL MFG. CO.

NEW YORK.

been given to the world by a man on whose back the sun was still shining. The effective, moving, vitalizing work of the world is done between the ages of 25 and 40 years—these 15 golden years of plenty, the anabolic or constructive period, in which there is always a balance in the metal bank and the credit is still good.

In the science and art of medicine there has not been an advance of the first rank which has not been initiated by young or comparatively young men. Vesalius, Harvey, Hunter, Bichat, Laennec, Virchow, Lister, Koch—the green years were yet in their heads when their epoch-making studies were made. To modify an old saying, a man is sane morally at 30, rich mentally at 40, wise spiritually at 50—or never. The young men should be encouraged and afforded every possible chance to show what is in them. If there is one thing more than another upon which the professors of the university are to be congratulated, it is this very sympathy and fellowship with their junior associates, upon whom really in many departments, in mine certainly, has fallen the brunt of the work. And herein lies the chief value of the teacher who has passed his climacteric and is no longer a productive factor: he can play the man midwife, as Socrates did to Thesstetus and determine whether the thoughts which the young men are bringing to the light are false idols or true and noble births.

CHLOROFORMING SEXAGENARII.

My second fixed idea is the uselessness of men above 60 years of age, and the incalculable benefit it would be in commercial, political and in professional life if, as a matter of course, men stopped work at this age. Donne tells us in his "Biathanatos" that by the laws of certain wise States sexagenarii were precipitated from a bridge, and in Rome men of that age were not admitted to the suffrage, and were called depontani because the way to the senate was per pontem and they from age were not permitted to come hither. In that charming novel, the "Fixed Period," Anthony Trollope discusses the practical advantages in modern life of a return to this ancient usage. and the plot hinges on the admirable scheme of a college into which at 60 men retired for a year of contemplation before a peaceful departure by chloroform. That incalculable benefits might follow such a scheme is apparent to any one who, like myself, is nearing the limit, and who has made a careful study of the calamities which may befall men during the seventh and eighth decades.

Still more when he contemplates the many evils which they perpetuate unconsciously and with impunity! As it can be maintained that all the great advances have come from men under 40, so the history of the world shows that a very large proportion of the evils may be traced to the sexagenarians —nearly all the great mistakes politically and socially, all of the worst poems, most of the bad pictures, a majority of the bad novels, and not a few of the bad sermons and speeches. It is not to be denied that occasionally there is a sexagenarian whose mind, as Cicero remarks, stands out of reach of the body's decay. Such a one has learned the secret of Hermippus, that ancient Roman, who feeling that the silver cord was loosening, cut himself clear from all companions of his own age, and betook himself to the company of young men, mingling with their games and studies, and so lived to the age of 153, puerorum halitu refocillatus et educatus. And there is truth in the story, since it is only those who live with the young who maintain a fresh outlook on the new problems of the world.

THREE PERIODS IN THE TEACHERS LIFE.

The teacher's life should have three periods—study until 25, investigation until 40, profession until 60, at which age I would have have him retired on a double allowance, Whether Anthony Trollope's suggestion of a college chloroform should be carried out or not, I have become a little dubious, as my own time is getting so short.—J. Akerman, M. D., in Wilmington (N. C.) Morning Star, March 18, 1905.

Phospho-Albumen as a Nerve Food.

Phospho-Albumen is derived from the testes, spinal cords and brains of bulls. Its chemical constituents are di-oleyl-phosphoric acid, lecithin, spermin, and nuclein. Phospho-Albumen renders possible the administration of 85 per cent. more phosphorus (organic) than is possible by any other method; it is obsolutely without danger of intoxication or any undesirable after effect. Gilbert and Lippman (Presse med., quoted by Jour. Amer. Med. Assoc., Oct. 1, 1904) have pointed out the constant absence of mineral phosphates from, and the remarkable abundance of phospho-organic compounds in the soft parts of the organism, and assert that the therapeutic use of mineral phosphates (which are found only in the excreta of the body, and represent the detritus of the organic compounds) is irrational, while the organic phosphates, on the other hand, offer a promising field for therapeutic employment. Phospho-Albumen is, by reason of its derivation and chemical nature, the most trustworthy agent for the treatment of functional impotence, sexual atonicity, senile or pre-senile debility, seminal emissions, spermatorrhea, sterility, insomnia, alcoholism, etc., or as an adjuvant to other well established measures for the treatment of epilepsy, locomotor ataxia, etc. As an aphrodisiac and general nerve tonic, the special formula, No. 33, of the Phospho-Albumen Co., of Chicago, has many advantages. The formula is as follows: Phospho-Albumen, grains 3; strychnine sulphate, grain 1-50th; zinc phosphide, grain 1-10th; gold chloride, grain 1-60th, in tablet form only.

Ergot and Arsenic Combined in Chorea.

Clive Riviere, assistant physician to the East London Hospital for Children, recommends a combination of ergot and arsenic in chorea. (Brit. Med. Jour., Feb. 18, 1905,) He had proved to his own satisfaction that the liquid extract of ergot, in doses of 1 or 1 1-2 drams thrice daily, with 2 min. of liquor strychninæ (as recommended by Dr. Eustace Smith) had a marked curative effect in certain cases of chorea, about 50 per cent. of those he treated, and that most of the remainder improved when arsenic was substituted. In two cases, however, the ergot treatment was first ineffectual, but the succeeding arsenic treatment made them worse. On returning to ergot, immediate improvement was noted. This suggested combining the remedies, and accordingly Riviere made a mixture containing 1 dram of extract of ergot and 3 minims of liquor arsenicalis, these doses being increased as seemed desirable. He has used this treatment for the past year, with very desirable results. This unbenefited cases consist mainly of those violent choreas for which so little beyond isolation can be done.—Mercks Archives.

Treatment of Felons.

Felons are classed as minor surgery and yet many a finger has been lost through their careless treatment. Antiphlogistine is a specific in incipient cases. Apply hot, change every 6 or 8 hours and resolution will, as a rule, occur without the formation of pus. If pus has already formed incise deeply and freely. Thoroughness is essential. Evacuate and cleanse with a suitable antiseptic. Insert a drainage tube. Surround the fluger with Antiphlogistine. Cut the drainage tube 1-4 inch above the surface of the Antiphlogistine. Cover all with absorbent cotton and a bandage. The results will be satisfactory.

A Rational Treatment for

Pulmonary Tuberculosis

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Firolyptol with Kreosote

(TILDEN'S)

Formula:

Eucalyptol	
Kreosote (Morson's)	aa m x
Ol. Gossypii Sem. Purificat. (Pancreatized)	℥ ss
Firwein (modified)	q.s. ℥ j

Dose: Half to one tablepoonful after meals.

Samples on Application.

Prepared Expressly for Physician's Prescriptions.

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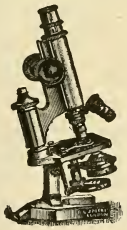

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For further information, address, NewOrleans Polyclinic, Postoffice box 797, New Orleans, La.

The Germs of Smallpox and of Syphilis.

An extraordinary session of the National Board of Health was recently held in Berlin in order to give a hearing to Dr. Johann Seigel who claimed to have discovered the microorganisms both of smallpox and of syphilis and desired to submit his proofs to official scrutiny.

Refreshing.

It is really refreshing to note the rasping that the California State Journal of Medicine gives the American Medical Association Journal for its unethical conduct in its advertising pages. Keep it up Brother California; you have good cause for fighting.—Exchange.

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Madison	Dr. J. H. Baird, Mars Hill	Dr. W. J. Weaver, Marshall
McDowell	Dr. B. A. Cheek, Marion	Dr. G. S. Kirby, Marion
Mecklenburg	Dr. Lester Hunter, Sardis	Dr. Parks M. King, Charlotte
Montgomery	Dr. F. E. Asbury, Asbury	Dr. C. Ingram, Mt. Gilead
Moore	Dr. W. A. Monroe, Sanford	Dr. Gilbert McLeod, Carthage
Nash	Dr. J. T. Strickland, Nashville	Dr. R. B. Miller, Rocky Mount
New Hanover	Dr T. S. Burbank, Wilmington	Dr. E. J. Wood, Wilmington
Northampton	Dr. A. J. Ellis, Garysburg	Dr. R. P. Morehead, Lasker
Onslow	Dr. J. L. Nicholson, Richlands	Dr. E. L. Cox, Jacksonville
Orange	Dr. J. H. Manning, Chapel Hill	Dr. C. D. Jones, Hillsboro
Pender	Dr. J. R. Williams, Rocky Mount	Dr. — Crowell, Burgaw
Person	Dr. C. G. Nichols, Roxboro	Dr. J. A. Wilkes, Roxboro
Pitt	Dr. C. M. Jones, Grimesland	Dr. Joe Nobles, Greenville
Randolph	Dr. S. A. Henley, Asheboro	Dr. C. C. Hubbard, orthville
Richmond	Dr. W. H. Steele, Rockingham	Dr. L. D. McPhail, Rockingham
Robeson	Dr. J. D. McMillan, Lumberton	Dr. L. R. Kirkpatrick, Maxton
Rowan	Dr. J. S. Brown, Salisbury	Dr. I. H. Foust, Salisbury
Rutherford	Dr. T. B. Twitty, Rutherfordton	Dr. B. Harris, Rutherfordton
Stanly	Dr. Thos. A. Hathcock, Norwood	Dr. J. W. Peacock, New London
Sampson	Dr. R. E. Lee, Clinton	Dr. G. L. Sikes, Salemberg
Scotland	Dr. D. M. Prince, Laurinburg	Dr. A. W. Hamer, Laurinburg
Stokes	Dr. A. G. Jones, Walnut Cove	Dr. T. T. Watkins, Walnut Cove
Swain	Dr. J. H. Teague, Whittier	Dr. R. D. Holt, Cherokee
Surry	Dr. J. B. Smith, Pilot Mountain	Dr. E. M. Hollingsworth, Mt. Airy
Transylvania	Dr. E. S. English, Brevard	Dr. Goode Cheatbam, Brevard
Union	Dr. R. Armfield, Marshville	Dr. Ed. S. English, Brevard
Vance	Dr. R. J. Gill, Henderson	Dr. H. D. Stewart, Monroe
Washington	Dr. D. W. H. Hardison, Creswell	Dr. J. L. Hassell, Creswell
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Wilkes	Dr. J. W. White, Wilkesboro	Dr. M. V. Burrus, North Wilkesboro
Wilson	Dr. C. E. Moore, Wilson	Dr. J. W. Lamm, Lucama
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Recovering from Typhoid

The patient's strength is exhausted, his tissues wasted, and a relapse feared if the digestive organs be not spared all unnecessary strain.

BURNHAM'S CLAM BOUILLON.

Burnham's Clam Bouillon

(Absolutely Free from Any Preservative)

offers an ideal tissue-building and stimulant food which places the least strain upon digestion. The fact that **BURNHAM'S CLAM BOUILLON** is sterilized and is partly predigested makes it especially fit for use in typhoid fever convalescence. The results are: grateful patients and rapid strides towards the restoration of vigor and health, without any fear of a relapse due to a dietetic error.

Physicians cannot make a mistake in prescribing **BURNHAM'S CLAM BOUILLON** in typhoid convalescence. It is bottled in glass, being sold in pints and half-pints. This assures not only cleanliness and convenience in the serving, but perfect purity and freshness while using in the sick room. All the leading apothecaries and grocers sell it.

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3

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ANTIGIA POWDERED.

A Safe and Powerful analgesic that can be used with confidence by itself, or in combination with other drugs, such as Salol, Heroin, Salicylate Soda, Iodide Potash, etc.

ANTIGIA TABLETS.

Each tablet contains five grains of **Antigia,** and in this form it is most accurate and convenient for general uses.

Relieves — Reduces

ANTIGIA AND CODEINE TABLETS.

Antigia 4½ gr., Phosphate Codeine ¼ gr. This combination will be found a most valuable one where Phosphate Codeine is needed in combination with a Powerful analgesic.

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Antigia 2½ gr., Sulph. Quinine 2½ gr. The therapeutic action of Quinine is so well understood that the practical uses of its combination with a known Antipyretic are apparent at once.

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ANTIGIA AND HEROIN TABLETS.

Each tablet contains **Antigia** 5 grs., Heroin 1-16 gr.

An elegant form in which to administer Heroin, thereby getting the combined properties of an exctorannt with a safe Anodyne.

Samples sent to the Profession upon receipt of request.

POWERS-TAYLOR DRUG COMPANY,

Richmond, Virginia.

Medical Men and Motor Cars.

No medical man who has had a trustworthy motor car would ever return to the horse and carriage as his means of transport. Whatever joys may be extracted from driving a good horse are more than compensated for by the saving of time and the still greater blessing—the ability to start anywhere at a moment's notice—that the ownership of a car confers. The two questions that are constantly agitating the mind of the country doctor who hankers after a car are that of cost and that of "reliability"—as the trade term goes. The initial cost is certainly higher for the smallest useful car than that for which a horse and trap can be obtained, but the upkeep of an average car, properly managed, seems to be about the same as that of a single horse. From an interesting article by Mr. Henry Norman, M.P., we learn that a really sound small car can be bought for $925, but that to make such a car thoroughly useful tyres of a larger size than those fitted by makers should be used. At the end of five years' running this car should still be in good enough going order to fetch $425 in the market, so that if the user wished to get a new one, he would only be $500 out of pocket as the result of his experiment. The depreciation, therefore, Mr. Norman writes down at $100 a year, and giving the car five thousand miles a year to run, he estimates that the following would be be the mortorist's budget: tyres, $100, supplies and sundries, $35; replacements and repairs, $50. It will be noticed that no wages for the chauffeur are included, as Mr. Norman expects the amateur to pick up all that is necessary in a couple of months and to delight in attending to his car. To such the prospect is enticing.—Medical Press and Circular.

When Shall We Be Chloroformed ?

At a recent meeting of the Physicians' Club this subject was discussed both by laymen and physicians. Franklin MacVeagh replied to the question, "When Shall the Business Man Shuffle Off ?" He said he is willing to feed out the 95 per cent. of incompetents to the Osler wolves in order to save the five per cent. who are fitted to survive. Only five per cent. of men who embark in business succeed; the 95 per cent- fail. They cannot meet the competition, but perhaps they could have done well as college professors, some of them. Prof. George E. Vincent, of the University of Chicago, replying to the query, "When Shall the Professor be Doped?" introduced his graver remarks by an anecdote. A Scotch exhorter asked his congregation how many wanted to go to Heaven. All responded except one canny old fellow. "Don't you want to go, Sandy ?" demanded the exhorter. "Aye," responded Sandy, "only I don't care to be personally conducted." He declared that the older a professor got, the better fitted he was for his business, since the ideal of the college professor is to be permanently dogmatic. Bishop Samuel Fallows considered the point, "When Shall We Administer Chloroform to the Clergyman?" He believes in persons getting out of the world when it is a decent time; but the days of man are not the proverbial three score and ten, but 120 years. This is scriptural, and he is glad to see it is also the present scientific idea. The subject was further discussed by Dr. Wm. Allen Pusey, Mr. I. K. Pond, Mr. Joseph W. Errant, Mr. W. D. Nesbitt, and Joseph L. McMahon.—Exchange.

Russian Doctors Demand Radical Reforms.

A congress of doctors from all parts of Russia was held in Moscow last week, ostensibly to consider means for combating an expected epidemic of cholera, but its proceedings assumed considerable of the character of a political assemblage. Resolutions were adopted declaring that under existing political and economic conditions it would be practically impossible to fight an epidemic of disease, as doctors and inspectors would not be safe from attack by ignorant peasants angered by the prevalent distress. The resolutions proceeded to demand changes in the system of allotment of lands, reform in taxation, the convoking of an elective constituent assembly, and other articles of the advanced liberal program. Since that time a number of those taking part in the proceedings have been arrested.—Exchange.

The Journal of the American Medical Association is perfectly correct when it states editorially in its issue of April 8, 1905, that its own observation of medical literature indicates that echinacea is being used far more than formerly, as Ecthol (Formula:—Each fluid drachm contains 28 grains echinacea augustifolia and 3 grains thuja occidentalis) has grown into almost universal use among physicians of all countries since it was first introduced to the profession some 5 years ago. Discussing echinacea in a recent issue of the Louisville Mouthly Journal of Medicine and Surgery, Dr. C. S. Chamberlin, of Cincinnati, writes as follows: "In my own experience, the results attending the use of echinacea have convinced me that there is no remedy of so great value in the treatment of cases of septic infection, and I have repeatedly used it in the cases of septicemia following wounds of the extremities, which I am confident, by any other means of treatment, would have resulted in the loss of the limb, and possibly the life of the patient." He further recommends it to eliminate toxins and to alter conditions which favor suppuration and inflammation, as in cases of abscesses, ulcers, gangrene, bites of venomous insects and reptiles, tonsillitis, the exanthemata, eczema and psoriasis.

A New Preparation.

There has recently been put on the market a preparation of Echinacea, Thuja Occidentalis and Baptisia called Eusoma. This is a preparation that is particularly indicated in septic conditions. The writer had on opportunity to try this compound in the following cases:

First—Patient had finger stuck with fish bone. A septic condition at once developed; inflammation and swelling extending nearly to the elbow. Applied Eusoma over inflamed area and gave half dr. every two hours. The swelling ceased at once and in twenty-four hours all pain was gone and hand was almost in normal condition.

Second case was that of puerperal fever. Was called to see woman fourth day after confinement; temperature, 103; pulse, 140. Applied Eusoma over abdomen and gave half dr. of same preparation every two hours; in thirty-six hours temperature became normal and pulse 90.

Third Case—Young lady; inflammatory rheumatism of knuckles of both hands, also of ankles. Right hand was swollen to double its normal size and very painful. We applied Eusoma externally, and gave half dr. every two hours. In eighteen hours an appreciable improvement began and continued for ten days, when she completely recovered.—Editorial in Oklahoma Medical News-Journal, March, 1905.

Death of Colonel Goode.

Col. Thomas F. Goode, proprietor of the Buffalo Lithia Springs, and a noted lawyer and a Confederate officer, died recently, aged 90 years.

"We had roast pork for dinner," wrote a Connecticut lady, in 1790, in a diary just printed, and Dr. S. who carved, held up a rib on his fork, and said:

"Here ladies, is what Mother Eve was made of."

"Yes," said Sister Patty, "and it's from very much the same kind of critter."

Prepare the Babies for the Summer by Using

SOLUBLE FOOD

An all milk food, which does not require the addition of milk to make it nutritious.

After the sixth month and for the second summer Carnrick's

LACTO PREPARATA

These preparations are only put up in glass vacuum jars and will keep in any climate.

Samples and literature telling how it is made upon request.

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CHRONIC CONSTIPATION

Is one of the most frequent as well as one of the most stubborn conditions with which the physician has to contend. This is largely due to the great amount of cathartics, liver pills and laxative nostrums so generally forced upon the American public.

There is but one method of treatment that will accomplish any permanent relief in these cases! That is gradual and regular rectal dilatation. It does for the invalid what Nature is doing every day for the healthy individual. It establishes regular and **natural** bowel action.

YOUNG'S DILATORS

are made of hard rubber in four graduated sizes. They are self-retaining and may be used by any intelligent person. They are practically infallible. Prescribe a set of these dilators in one of your most obstinate cases and you will appreciate their necessity in other chronic conditions due to defective elimination.

Sent prepaid on receipt of price, $2.50 per set. (To the profession.)

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Hydrogen Peroxide in Gynecology.

Walther reports excellent results in gynecology with perhydrol, a chemically pure solution of hydrogen peroxide and containing 30 per cent. by volume. In vulvovaginitis of young girls a 10-per-cent. dilution is injected into the vagina by means of a glass syringe. Irrigations are too expensive, but ordinary gauze may be saturated with the solution and introduced into the vagina by means of a speculum. Decubital ulcers heal rapidly and ulcerating carcinomata lose their offensive discharge and soon present a clean surface. The indications for using perhydrol are, briefly: (1) In all suppurating and ulcerative processes of the vagina and vulva; (2) in all gangrenous processes of the vagina and cervix; (3) in simple erosion and marked leucorrhea; (4) in severe inflammations of the endometrium, especially after abortions.—Med. Klinik.

Action of Alkalies on the Poison of Tetanus.

Giulio Cerri gives us the results of his experiments on guinea pigs with injections of tetanus toxin mixed with hydrate of soda. He first determined the amount of toxin necessary to kill a pig of 400-450 grammes in 24 hours He then injected twice that amount of toxin mixed with a solution of sodium hydrate. His conclusions are as follows: (1) Caustive soda prevents the toxic action of tetanus poison. (2) Three milligrammes of soda is sufficient to neutralize doses three and four times larger than the lethal dose for guinea pigs. (3 The loss of activity of the toxin through the use of soda is not due to the prevention of its absorption, nor to a chemical combination with the toxin, but to an effect on the direct action of the poison.—I,o Sperimentale, January-February, 1905.

Effect of Tubercle Bacilli on the Growth of the Colon Bacillus.

Korczynski has found that the presence of tubercle toxin stimulates the growth of staphyloccocus, streptococcus, and colon cultures, these organisms growing much more actively in media containing toxins than in those that are pure. Streptococci and colon bacilli grow more actively the higher the percentage of tubercle toxins present. Tuberculin is more effective in this respect than tubercle bouillon. The toxicity of colon bacilli cultivated on tubercle media is higher than that of organisms grown under ordinary conditions. Tubercle and colon bacilli appear to be synergists, since animals succumb on receiving at the same time non-fatal doses each of colon and tubercle bouillon.—Weiner klinische Wochenschrift.

Prof. W. D. Halliburton, M. D., of London, England, in a recent address delivered before the American Chemical Society, at New York, on January 8, 1904, as reported in the New York Medical Journal, says:

"This is neither the time nor place to enter into the wide question of infant feeding, but I cannot refrain from a passing allusion to the widely advertised farinaceous foods, which are even more harmful to the child than altered milk. Chemists can join with medical men in their attempt to educate the public to realize that the natural form of food for the infant is milk and that the child's alimentary canal is not capable of grappling with starch, still less with cellulose. The wide prevalence of intestinal disturbances and of rickets is largely due to the non-recognition of this elementary fact."

Is it fair to the weak infants that we take such liberties with such stomachs.

In Lact Preparata, we find the only infant food that perfectly nourishes children without the addition of cow's milk, We do not except the so-called milk-foods for they contain but very small percentage of solid constituents of cow's milk. Most of the credit given to prepared food belongs to cow's milk, which must be added to them, or the child would starve. It is not claimed that Lacto Prepatata is a perfect substitute for human milk, but that it appears nearer to human milk, in food value and digestibility than any other preparation that has been produced, and that it is the only infant's food that will, without the addition of cow's milk, thoroughly nourish a child from its birth.

At the time I had charge of the medical department of the Taladega Furnace Company and the B. & A. Railroad Company of Alabama, I had under my observation some 1200 men and women. My stay there continued for nineteen months, and during this time I used very little calomel, and in its stead employed Chionia for liver troubles with the best results. It is not necessary to state individual cases, but I will say that no remedy can equal Chionia as a hepatic tonic in cases of yellow skin, loss of appetite and bowel derangement. Chionia can be depended upon in clearing up these various disturbances which usually accompany or follow functional disorders of the liver.

B. F. Laird, M. D.

Covington, Ky.

Success of Japanese Field Surgeons.

Statistics from the chief surgeon of General Oku's army prove that the army surgeons and field hospitals have scored a triumph in surgery and medicine. There have been only forty deaths from diseases in the whole army since the landing on May 6. Up to December 1, 24,642 cases of disease were treated. Eighteen thousand five hundred and seventy-eight patients recovered, 5,609 were sent to Japan, 40 died, and the rest are still under treatment.—Ex.

Prevention of Cerebro-Spinal Meningitis.

Authorities recognize that cerebro-spinal meningitis develops in systems only where acid intoxication exists, and that when established it yields to the salicylates.

Therefore, to prevent the development of this much dreaded malady, acid intoxication must be corrected whenever it is found to exist. To this end there is nothing so appropriate and so effective as Sulpho.Lythin given in appropriate doses twice a day, because it re-establishes normal elimination, puts a stop to the absorption of irritating toxines and restores normal alkalinity of the blood.

The dose is a teaspoonful in hot water at bed time, at least four hours after the last meal of the day, and again in the morning an hour before breakfast. This dose is to be diminished as soon as the liver responds freely; but the remedy may be continued advantageously for several weeks when necessary.

Literature and samples on application to the Laine Chemical Co., 55 Liberty Street, New York.

Osteopaths not Physicians but Liable for Malpractice.

The Supreme Court of Missouri, according to the Medical Record, has decided that osteopaths are not physicians and surgeons under the laws of the State, but if they pretend to treat diseases they must be held responsible for their acts. The case came to the supreme court from a lower court, where a young girl, through her guardian, brought suit against one of the leaders of the School of Osteopathy for $10,000 damages for malpractice. She had been treated by him for hip disease, and alleged that he had done her great harm. The lower court sustained a demurrer to the evidence and rendered judgment for the defendant. The supreme court reversed that judgement, and held that the plaintiff was entitled to damages.

Opinion Based on an Experience of Over Twelve Years.

Sanmetto is an excellent preparation and in my opinion the best medicine of the kind to-day in the market. I have used it for over twelve years, and always with benefit. I have arrived at the age of sixty-seven years, when the plague of old men—enlarged prostate—is apt to annoy me, showing itself in frequent micturition, stoppage of urine, etc. I intend to use Sanmetto on myself. I received some literature on Sanmetto this morniag. I enjoyed the piece of poetry from my old friend, Eugene Field. It is very appropriate.

J. M. Campbell, M. D.

Brooklyn, New York City.

Obstetrics.

The most important cases that I find necessary for the use of Glyco-Thymoline are confinement cases where there is a tendency to septicemia, using well diluted with the ordinary fountain syringe. I generally direct the nurse to use one ounce of Glyco-Thymoline in one quart of water injected, well up to uterus each night and morning I am always gratified to see inflammatory conditions pass away. In case there is any foreign substance left in the uterus I always inject the agent direct into uterus with uterine douche.—J. Harold Lail, D.D., Ingalls, Ind.

Beaufort County, S. C., Medical Association.

This association was organized on March 29th with the following officers: President, Dr. H. M. Stuart, Sr.; vice-president, Dr. J. B. Thompson; chairman of county board, Dr. C. M. Guffin; secretary and treasurer and delegate to the State Association, Dr. M. G. Elliott; censors, Dr. M. B. Cope and Dr. W. R. Eve.

PNEUMONIA

PLEURISY AND BRONCHITIS

Under the old modes of treatment the death rate from pneumonia was phenomenally high—too high. Some will die under any treatment, but those who are usng

Antiphlogistine

in treating their pneumonia patients find that many apparently hopeless cases recover.

Most physicians now freely acknowledge that Antiphlogistine is far better than ice-packs, blisters, counter-irritants or poultices of any kind. Through a uniform degree of heat and moisture, long and continuously maintained, aided by a persistent hygroscopic effect, Antiphlogistine tends strongly in the direction of flushing the capillaries. The relief of the pulmonary congestion and the overworked heart is further encouraged by Antiphlogistine's action upon the nerve terminals, resulting in a dilation of the uperficial vessels and the contraction of those deeply seated.

Once you have used Antiphlogistine on yourself, your wife or your child, you will ever after appreciate its efficacy.

Follow Directions Carefully

Directions for Applying In Pneumonia.—Prepare the patient in a warm room Lay him on his side and spread Antiphlogistine thick and as hot as can be borne over one-half the thoracic walls. Cover with a good, warm, cotton-lined cheese-cloth jacket. Roll the patient over on dressed side and complete the application. Then stitch the front of the jacket. Prepare everything beforehand and work as rapidly as possible. The dressing should be renewed when it can be easily peeled off, generally in about 24 hours.

The seamless, air-tight original container of Antiphlogistine not only insures its delivery in perfect condition, but is economical for the patient; therefore, always order an original package and specify the size required—Small, Medium, Large or Hospital size.

(Never sold in bulk.)

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QUALITY IS THE FIRST DESIDERATUM

The name "Warner & Co.'s" applied to a Pharmaceutical Product is synonymous with highest possible quality. A more recent production is

IODOFORMAL

ANTISEPTIC SURGICAL DRESSING

A new definite syothetic compound of Cinchonine Iodo-Sulphate, Thymol Iodide, Bismuth Oxyiodide, Boro Formaldehyde, Phenylacetamide with Phenic Acid.

Liberates Iodine, Formaldehyde, Thymol and Phenic Acid.

Acts as an Efficient Local Antiseptic, Alterative, Astringent, Analgesic and Dermal Tonic.

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to pay $1o a year for a weekly journal without advertisements."

If any further evidence be required of the utter incompatibility of the A. M. A., N. A. R. D. Alliance—talked of so glibly by N. A. R. D. Notes and paraded thereby in such an ostentatious way as the "machine" management of the A. M. A. is too shrewd to follow in the columns of The Journal.—Exchange.

West Virginia State Medical Association.

The thirty-eighth annual meeting was held in the Board of Trade Hall, Wheeling, W. Va., May 24, 25 and 26. The following program was presented: "The Teachings of Failures," by Dr. F. L. Hupp, of Wheeling; "The Palliative Treatment of Prostatic Hypertrophy," by Dr. H. E. Sloan, of Clarksburg; "Preoperative and Postoperative Treatment of Surgical Cases," by Dr. J. E. Cannaday, of Paint Creek; "Appendical Abscess—Pathology and Treatment—Report of Cases," by Dr. S. M. Mason, of Clarksburg; "Injuries of the Head—Report of Cases," by Dr. Henri P. Linsz, of Wheeling; "Anatomical aud Physiological Principles Involved in the Symptomatology of Brain Traumatism," by Dr. J. Schwinn, of Wheeling; "Office Treatment of Rectal Diseases," by Dr. William M. Beach, of Pittsburg. Symposium on Pneumonia: "Etiology," by Dr. S. S. Wade, of Morgantown; "Pathology," by Dr. L. O. Rose, of Parkersburg; "Symptoms and Signs," by Dr. W. W. Thompson, of Charlestown; "Treatment," by Dr. L. D. Wilson, of Wheeling; "Tuberculosis," by Dr. J. W. Preston, of Keystone: "Pseudo-Membranous Croup," by Dr. S. W. Bush, of Parkersburg; "Cases and Experiences of Interest," by Dr. W. H. Sharp, of Parkersburg; "Diseases of the Kidneys," by Dr. M. McNeilan, of Parkersburg; "Rupture of the Bladder," by Dr. J. R. Cook, of Fairmont; "The Importances of Early Diagnosis of Interocular Lesions," by Dr. H. R. Johnson, of Fairmont; "Ficker's Diagnosticum," by Dr. L. O. Rose, of Parkersburg; "Drugs and the Diazo Reaction—A Communication," by Dr. Wm. W. Golden, Elkins.

Journalistic Amenities

The Charlotte Medical Journal may now look out for exclusion from further mention under the head of "Current Medical Literature" in The Journal A. M. A. Such would seem to be a way of "setting down on" journals that refuse to bend the knee in servitude to that mighty power in the land. The Charlotte Medical Journal, April, 1905, says: "The whole cause of the bad ethics so often seen scattered through the reading and advertising pages of The Journal (A. M. A.) is due to Dr. Simmons, and not to the trustees of the Association. He is a cunning politician and a typical commercial gentleman. As long as he has control of the Association Journal, it will succeed financially, but will never take a decent stand ethically." This is pretty plain talk coming from the representative journal of a State Medical Society recently "re-organized" along the plan advocated by Dr. Simmons.—Virginia Medical Semi-Monthly.

"Ethical" J. A. M. A.-ism.

The Journal of the American Medical Association is soliciting the advertising of homœopathic periodicals by offering them clippings and extracts from its pages. In all of them the Journal of the A. M. A. is mentioned after the style of the pharmaceutical house reading notice. It is cheap advertising, but most editors would prefer to make their own selections and to credit the periodical where the original was obtained rather than to have the other fellow hold the sieve.—Medical Century.

Antiseptic Vaginal Tampon.

In cases where inflammatory conditions call for the use of a medicated tampon, the following will be found most satisfactory and free from danger or objections:

℞ Pulv. alum, grm. 30.
Hux-sal, grm. 2.
Glycerini, grm. 309.
Aq. grm. 200.

M. Sig. Used to moisten vaginal tampons.—Exchange.

A Rational Treatment for

Pulmonary Tuberculosis

IS

Firolyptol with Kreosote

(TILDEN'S)

Formula:

Eucalyptol		
Kreosote (Morson's)	aa	m x
Ol. Gossypii Sem. Purificat. (Pancreatized)		3 ss
Firwein (modified)	q.s.	3 j

Dose: Half to one tablepoonful after meals.

Samples on Application.

Prepared Expressly for Physician's Prescriptions.

THE TILDEN COMPANY,

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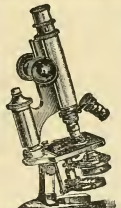

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Our New 1-12 Planachromatic Oil Immersion Objective, $25.50.
New High Speed Centrifuge for Blood and Urine, $7.50.
Goldhorn's New Stain for Blood, postpaid, 35c.
Special Microscopic Outfits for examination of Bacteria, $2.50 to $4.50.
The New Purdy High Speed Electric Centrifuge.
Complete Microscope, 2-3, 1-6 and 1-12 Objectives, for examination of Blood, Urine and Bacteria, $55.00.
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The 140th Session of this Department will begin September 29th, 1905. The course throughout the four years is eminently practical. The laboratories, in point of equipment, are unsurpassed and abundant clinical facilities are to be found in the University Hospital with its 350 beds, used exclusively for the students of this University. Additional clinical opportunities are supplied by the 1000 patients in the Philadelphia Hospital situated in adjoining grounds. The methods of instruction are revised from year to year and conferm to the most modern and progressive views. The final year is spent almost entirely in the Hospital. For a greater part of the session the student spends the forenoon in the wards of the Hospital, where he is called upon to perform all the duties of a Resident Physician, so that by the day of his graduation he has already had one year's Hospital experience. The graduates of this school of Medicine have no difficulty in securing by competitive examination and with the influence of the prestige of the school, appointments as Resident Physicians. Eighty per cent. of the last graduating class were offered appointments within a month of their graduation. For further information address the

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Johns Hopkins Hospital Staff.

The resignation of Dr. Richard H. Follis as resident surgeon in the Johns Hopkins Hospital has been accepted. His successor is Dr. William F. Sowers. Dr. S. H. Watts has been made first assistant and Dr. R. T. Miller second assistant resident surgeon.

Bad for Both.

The physician who refuses to prescribe a well established remedy merely because it is a proprietary remedy is not doing the best possible for his patient or for himself.—Walter E. Bates, M. D., California State Journal of Med.

Prevention of Apoplexy.

Allbutt says that "strokes" are of several kinds, but he confines himself in this paper to the cases where the disease is of long standing and can be found in the arteries about the seat of the hemorrhage. Postmortem, these show no effussion of blood, but the circulation of the brain has been arrested by a slitting up of the arteries rather than by rupture of them. The heart here does not show hypertrophy, but rather an atrophy. The arteries present calcification of the middle coat. The kidneys are not granular. In another class of cases the brain is healthy, the heart hypertrophied, the arteries spoiled. The trouble then lies in the mechanism of the circulation, and that chiefly in the arteries. These cases may present high arterial pressure due to contraction of the arteries, or they may have no rise of pressure at all. In the cases without rising pressures arterial spasm is present.

He says then that the prevention of apoplexy will be found in the preventing of the special tendency to a persistent mean rise. Arteriosclerosis is not the cause but the consequence of rising arterial pressure. The man of over forty should have his blood pressure measured every five years until sixty, and if there is no great increase in the pressure until then, the danger of apoplexy can be disregarded. If the pressure is found increasing, his mode of life must be revised. If a slight attack has occurred there is even more reason for changing the mode of living.—T. C. Allbutt, Bristol Medico-Chirurgical Journal, March, 1905.)

Progress in Diagnosis and Treatment of Perforative Peritonitis.

Death in peritonitis after perforation of intestines, appendix, etc., is in many cases due not only to the pus in the peritoneal cavity, but to paralysis of the bowels, stagnation of the fecal contents in the bowels, and the consequent toxemia. If the pus has been evacuated, and tympanitis should occur or persist, enterostomy should be performed. The author treated during the acute stage of peritonitis, eleven (11) cases with enterostomy, of which seven (7) recovered. As long as the intestines are still able to contract, one incision will be sufficient, but in a case where the bowels were entirely paralyzed, the author successfully incised the intessine in three places in order to remove the toxic contents. The method used is as follows: Through a small laparotomy wound (if a former operation has taken place, the same opening is used) a small trocar is introduced into the intestine under due protection of the abdominal cavity by gauze packing. The fecal matter is removed through a rubber tube attached to the trocar, the outflow being facilitated by irrigation. Enterostomy is best performed early, before the intestine muscles are entirely paralyzed.—Barth, Danzig, Deutsche Medicinische Wochenschrift.

Antikamnia--(Therapeutic Indications).

Antikamnia is an American product, and conspicuous on this account and because of the immense popularity which it has achieved, it is to-day in greater use than any other of the synthetically produced antipyretics. The literature is voluminous, and clinical reports from prominent medical men in all parts of this country, with society proceedings and editorial references, attest its value in actual practice in an endless variety of diseases and symptomatic affections, such as the neuralgias, rheumatism, typhoid and other fevers, headaches, influenza and particularly in the pains due to irregularities of menstruation. Antikamnia has received more adverse criticism of a certain spiteful kind, particularly directed against its origin—and because of its success—than any other remedy known; critics kave seemed personally aggrieved because of its American source, and that it did not emanate from the usual "color works," but their diatribes have fallen flat as do most persecutions and unreasonable and petty prejudices. The fact stands incontrovertible that antikamnia has proved an excellent and reliable remedy, and when a physician is satisfied with the effects achieved he usually holds fast to the product. That is the secret aud mainspring of the antikamnia success. It is antipyretic, analgesic, any anodyne and the dose is from 5 to 10 grains, in powder, tablets or in konseals taken with a swallow of water or wine. When prescribing Antikamnia, particularly in combination with other drugs, it is desirable to specify "in konseals," which are rice flour capsules, affording an unequaled vehicle for administering drugs of all kinds.

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OSWEGO, N. Y., April 15th, 1905.

The Anasarcin Chemical Co., Winchester, Tenn.

Gentlemen:—Yours of March 16th to hand. The sample tablets were duly received. After some delay we were able to get a supply through the jobber, and now have them as needed. I had a case of general anasarca, albumin in very large quantity and great disturbance of the circulation, due to uncompensated valvular lesion, in which I had exhausted all the stock, orthodox, remedies without benefit; in fact, the patient was steadily getting worse, voiding only xii to xx ounces of urine and breathing heavily and with great distress nearly all the time. I expected an early demise and commenced the treatment that you recommend only as a dernier resort. Within three days there was improvement which has steadily continued. The elimination of urine gradually increased to 30, 40, then 60 to 80 ounces a day, the tumultuous heart was steadied, breathing improved in quality, insomnia disappeared, albumin lessened. Now, after two months or a little less, the patient is practically well. There is no unsteadiness of the heart; the breathing is easy and he goes to bed and sleeps all night; there is no edoema, and there is no albumin in the urine, of which he voids about 50 ounces per day. He is now taking four tablets a day and expects to get to his business as soon as the weather moderates a little. I had a parallel case, only more chronic, with an acute exacerbation, in which there were almost similar results, but not quite as satisfactory, owing first to the chronicity of the kidney trouble, an old interstitial nephritis, and secondly to the intractibility of the patient; but on the whole the results were satisfactory, and much more so than I could expect from any other line of treatment that I know of.

The ordinary diuretics and heart remedies disturb the stomach to a marked degree, whereas there seems to be improvement when taking the remedies suggested in your booklet.

Within a few days I have put another patient on the treatment. His trouble was inability to make the slightest exertion without the most dangerous and distressing form of dyspnea; in this case there was very pronounced regurgitant murmur, general venous congestion, no albumin or edoema. Six weeks treatment had made very little improvement; urea was excessive, urine about xx ounces. One week, taking four tablets per diem, has made a marked improvement.

Yours truly,

(Signed) J. K. STOCKWELL, M. D.

A Plea for Radical Surgical Treatment of Chronic Gastric Ulcer.

Gastric ulcer should be treated surgically:

1. If hemorrhages endanger the life of the patient.
   (a) Acute profuse hemorrhage.
   (b) Repeated lesser hemorrhage.
2. In case of perforation of the ulcer, operation is imperative.
3. If there is a stricture of the pylorus, an operation is also clearly indicated.
4. In case of adhesions between gastric ulcer and abdominal wall or other organs adjacent, indication for operation depends upon the symptoms caused by the adhesions.
5. Gastric ulcers resisting internal treatment should be operated upon.

The ideal operation is the radical excision of the ulcer; gastro-enterostomy and pyloroplasty can not be considered but as palliative operations. This same rule applies to the stricture of pylorus caused by ulcer. Radical excision is the only sure way for complete relief.—Krognis, Archiv. fuer Klinische Chirurgie.